Corporate Performance and Ownership Structure:

The evidence of the Korean PLCs

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Dedicated to the God who always with me

and gave me my parents and sons, and my wife Jee-Sook…

Declaration

Unless otherwise indicated, this thesis is my own work

James Jae-Myoung Kim

March 2003

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Abstract

This thesis examines the cross-sectional relationships between insider ownership, ownership concentration, ownership composition and corporate value in Korean publicly listed companies (PLCs). These relationships are tested using piecewise ordinary least squares linear regressions and two-stage least squares linear regressions applied to equations which include a number of ownership variables to explain variations in corporate value, alongside capital structure variables and industrial dummy variables. The evidence suggests that there is a significant non-monotonous relation between the level of insider ownership and corporate value for the Korean PLCs and that insider ownership affects corporate value, but not vice versa. The findings here raise questions regarding the assumption that ownership structure is endogenously determined, but they support the theories that corporate value is affected by levels of insider ownership.

Since the crisis in 1997, economic reform including restructuring of the corporate governance system of the Korean corporate sector has been advanced under IMF guidelines. Many commentators, however, are still concerned about the ownership structure of the Korean PLCs. Ownership structure is often asserted to be one of the most important factors contributing to the highly indebted financial structure, excessive diversifications, inadequate monitoring and failure in accounting transparency and monitoring mechanisms in Korean corporations. In this regard, the question of whether or not ownership structure of the Korean PLCs still affects their value is the main interest to this study.

The level of corporate value declines as insider ownership increases up to 15 per cent. It rises as insider ownership increases up to 35 per cent and then declines again after 35 per cent. In the case of the Korean PLCs, around 35 per cent of insider ownership might be recommended to contribute to higher corporate value, and so the current average of 50 per cent insider ownership should be reduced. The evidence also suggests that for the Korean PLCs there is no reverse causality from corporate value to insider ownership. There is no significant relationship

between the concentration of ownership and corporate value. There is, however, a relationship between ownership composition and corporate value. The evidence suggests that a situation in which top management holds only small share of a corporation is also associated with a lower value of the firm. The share controlled by insiders and management positively affects corporate value, while the share controlled by outsiders of firms such as the foreigners' share, has a negative effect on firm value. Foreigners choose to hold more shares when firms perform well, and also prefer to hold shares in larger manufacturing companies rather than in smaller finance and information technology companies in Korea.

It also has been suggested that there are significant differences between the results for the *chaebol* firms and the non-*chaebol* firms in Korea. The results here support this proposition. The government, therefore, should differentiate between the corporate reform policies that could be applied respectively to the *chaebol* and non-*chaebol* firms.

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Abbreviations

EBO	Employee Buy-Out
FBO	Family Buy-Out
GNP	Gross National Product
HCI	Heavy and Chemical Industry
IMF	International Monetary Fund
IMF	International Monetary Fund
IT	Information Technology
KFTC	Korea Fair Trade Commission
KOSDAQ	Korea Securities Dealers Association
KSE	Korea Stock Exchange
KSIC	Korea Standard Industrial Classification
LBO	Leveraged Buy-Out
MBO	Management Buy-Out
MNEs	Multi National Enterprises
M&A	Mergers and Acquisitions
NICE	National Information and Credit Evaluation
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
PLCs	Publicly Listed Companies
R&D	Research and Development
SMEs	Small and Medium Enterprises
2SLS	Two-Stage Least Squares
3SLS	Three-Stage Least Squares

1

Introduction

Background and motivation

After the financial crisis in Korea of 1997, the key to the eventual success of Korea's economic reform has been the restructuring of the Korean corporate sector. The Korean corporate sector, mostly publicly listed private companies (PLCs), led and contributed substantially to the national economy over the last four decades. During those times, the big conglomerates of firms, the so-called c*haebols*, were formed by the previous governments' industrial development policy, which was focusing on heavy-chemical industrial development.[1] In fact, this development policy made most c*haebols* dominate the previous tremendous economic growth in Korea. On the other hand, however, it brought about an economic concentration problem and led to insolvent management under government protection.[2] Ironically, therefore, the *chaebols* and the governments' corporate sector policy, the so-called 'conglomerates policy', are often criticised for contributing to the financial crisis of 1997, thus becoming one of the main sectors in need of reform (Yoo, 1998). Among the critical debates, the failure in corporate governance of the Korean corporate sector is most often cited. The structural, systematic or institutional nature of firms has evolved behind the unprecedented economic growth. The financial crisis, however, exposed defects in the corporate governance system of the Korean corporate sector. One such defect discussed is the structural characteristics of most Korean PLCs, such as the highly indebted financial structures and extremely diversified business portfolios. Another is the inadequate monitoring and lack of checking as a result of a failure

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[1] Korean business conglomerates that consist of many subsidiaries, diversifying into various lines of business, usually owned and controlled by a single family. There have been many studies that have attempted to define chaebols in their own terms: See Cho, Dong Sung (1991) for a survey of various definitions of chaebol. Comparable names of big business in other capitalist economies are: Trusts in the US around the turn of the 20th century, Konzerne in German industrialisation history, Japanese pre-war Zaibatsu (both *chaebol* and zaibatsu are written with the same Chinese characters, pronounced in Mandarin Chinese as caifa with the meaning of financial clique), business groups (*kigyoshudan*) or *keiretsu* in contemporary Japan, *guanxiqiye* (related enterprise) in Taiwan, etc. (Yoo, 1998)

[2] Gross sales by *chaebols* amounted to 96.2 per cent of the GDP in 1996 (KFTC 1998). Another economic concentration ratio - the average assets of the 30 largest *chaebols* - accounted for 46.5 per cent in 1994, compared to 22.4 per cent in the U.S.A., 22.7 per cent in Japan, and 22.7 per cent in Germany (Hwang 1997).

in accounting transparency and monitoring mechanisms because most Korean PLCs are owned and managed by founders and founders' family with a high proportion of shares.[3] In this regard, the question of whether high insider ownership of the Korean PLCs affects their performance positively or negatively is of interest to this study.

The corporate circumstances in Korea are relatively unique compared with those of other developed nations as well as other ownership structures, because uncontrollable 'one-man' management, the so-called 'owner-managerialism', is prevalent throughout Korean firms. Economists argue that whether the ownership structures are governed by 'one-man' owner management or family management under favourable government protection policy, the structure affects corporate performance and firm value, because not only might there be a strong incentive to the owner manager; but the result may be a distorted management of an arbitrary or entrenched kind.[4] This thesis investigates the relation between the ownership structure of the PLCs and *chaebol* companies and their performance in Korea and, in what ways.

Analytical issues

"Neither the claims of ownership nor those of control can stand against the paramount interests of the community. ... Rigid enforcement of property rights, as a temporary protection against plundering by control would not stand in the way of the modification of these rights in the interest of other groups. When a convincing system of community obligations is worked out and is generally accepted, in that moment the passive property right of today must yield before the larger interests of society. ... It is conceivable, - indeed it seems almost essential if the corporate system is to survive, - that the "control" of the great corporations should develop into a purely neutral technocracy, balancing a variety of claims by various groups in the community and assigning to each a portion of the income stream on the basis of public policy rather than private cupidity." (Berle and Means, 1932:312-3)

Berle and Means (1932) proposed three characteristics of modern firms as evidence of their entering the new era as economic organisations. First, big corporations are owned by a number of anonymous investors who hold only a few shares; second, most managers hold negligible (insignificant) quantities of shares; third, there are big differences between the interests of shareholders and

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[3] In *chaebols*, it is well known that mutual shareholdings are prevalent among subsidiaries within a group.

[4] For the incentive argument, see Han and Suk(1998), Holthausen and Larcker(1996), Mehran(1995), and Jain and Kini(1994), and for the entrenchment argument, see Boyle, Carter and Stover(1998), Slovin and Sushka(1993), and Jensen and Murphy(1990)

managers. Berle and Means also pointed out that if the corporate ownerships are widely dispersed, the conflicts between the shareholders and managers are inevitable. If the shareholders cannot exercise their voting rights, and the directors shirk supervising the managers on behalf of the shareholders, managers might laxly operate the firms, and pursue their own benefits.[5] Berle and Means also raised the owner-agency problem: the conflict of interests between managers and owners affects corporate performance.[6] Berle and Means suggested that the separation of ownership and control causes managers to abuse the management of power in modern corporation.

The initial motivation of this thesis originated from the theory of Berle and Means (1932). Based on their theory, the analytical issues to study here are as follows.

1. Does the ownership structure of the Korean PLCs affect their corporate performance? If so, how?

2. Are there significant correlations between corporate performance and ownership structure in the Korean corporate sector? If so, in what ways?

In order to answer the questions above, we establish specific hypotheses as follows:

H1: Ownership structure (insiders' shares) of the Korean PLCs significantly affects their corporate performance.

H2: Corporate performance of the Korean PLCs significantly affects their ownership structure (insiders' shares).

H3: There is a significant relationship between ownership concentration (top 3 largest shareholders' shares) of the Korean PLCs and their corporate performance.

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[5] According to Berle and Means, the actual power to manage an enormous enterprise belongs to the top managers who appoint directors, and express this power by using the word 'control'. The separation of ownership and 'control' in any modern corporation is irrevocable.

[6] But, Stigler and Friedland (1983) set up the hypothesis that owner-managers manage effectively regardless of the size of firms, and urge that it is not the owner-agency problem because there is no mention of the incentive system of managers' compensation in Berle and Means' theory.

H4: There are significant relationships between ownership composition and corporate performance of the Korean PLCs.

Finally, to examine the similarities and differences between the results regarding above issues for the *chaebol* firms and the non-*chaebol* firms, the final hypothesis is established as follows.

H5: There are significant similarities and differences between the results for the *chaebol* firms and the non-*chaebol* firms.

The issues to be examined in this thesis are raised from the assumption that the relations between ownership structure and corporate performance as argued by Berle and Means (1932) exist in modern corporations. In order to identify the correlation between corporate performance and ownership structure, a brief overview of the concept of corporate governance is provided in Appendix 2.

Empirical proposals and methodology

Since Berle and Means (1932) raised the questions and warned of the dispersed ownership and separation of the ownership and control in modern corporations, many economists went one step further and suggested empirically various other proposals. These are briefly overviewed as an interim pathway to help the methodology of this thesis in this section.

Jensen and Meckling (1976) find that more equity ownership by the manager may increase corporate performance because it means better alignment of the monetary incentives between the manager and other equity owners (incentive alignment argument). Stulz (1988) argues that more equity ownership by the manager may increase corporate performance because the managers are more capable of opposing a takeover threat from the market for corporate control, and as a result the raiders in this market will have to pay higher takeover premiums (takeover premium argument). Shleifer and Vishny (1986 and 1997) develop a model to demonstrate that large owners or block owners may be more capable of monitoring and controlling the management, thereby perhaps contributing to

corporate performance (monitor argument). Fama and Jensen (1983), however, argue that increased ownership concentration (any kind of owner) decreases corporate performance because it raises the firm's cost of capital as a result of decreased market liquidity or decreased diversification opportunities on behalf of the investor (cost of capital argument). Stulz (1988) presents a formal model that predicates a roof shaped relation between managerial ownership and performance. The model integrates the takeover premium argument and the entrenchment argument into a single theory (integrated theory). Slovin and Sushka (1993) support Stultz (1988) with their empirical results that insider holdings at low level affects firm value, but when insider ownership is high, it adversely affects firm value (insider entrenchment argument). Likewise, Morck, Shleifer and Vishny (1988a) find and emphasise that the incentive alignment argument and the entrenchment argument can be presented in different levels of managerial ownership. There are three significant levels of managerial ownership: corporate performance increases below 5% and over 25% ownership, but it decreases between 5% and 25% ownership (combined theory).

On the other hand, Kole (1996) reports that firms reward their managers for good past performance by giving them equity ownership, so better performance results in more management ownership (referred to as the reward argument). Cho (1998) presents an insider-reward argument in his empirical study that managers may prefer equity compensation when they expect their firm to perform well and, consequently, the value of the firm to increase. As a result, higher levels of insider ownership are expected at firms with high corporate values. Loderer and Martin (1997) show that owner-managers are insiders who may capitalise on their insights by increasing their ownership when they expect increased future performance and decrease their ownership when they expect decreased performance (insider-investment argument). Demsetz (1983), Demsetz and Lehn (1985) and Kole and Lehn (1997), however, argue that any kind of ownership structure is determined by corporate performance in the sense that corporations with inefficient ownership structures will fail to survive in the long run. It should be noted that an implication of this argument is that in the long run all ownership structures should be expected to perform equally well (endogeneity argument).

Morck et al. (1988a) selected 371 of the largest U.S. firms as research samples, and identified in the ownership structure significant ownership variables such as the combined shareholding by board members and the use of a dummy for the presence of the founder on the board. They also clarified corporate performance by Tobin's Q[7] by market value of stock, preferred stock and debt to replacement cost of plant and inventories, and profit rate by net cash flow to replacement cost of capital as performance variables. Piecewise linear regression was used as a statistical method. The incentive argument and entrenchment argument are explained simultaneously in their study. Their study particularly provides the empirical motivation to establish the hypotheses applied to the Korean case.

The sample for the empirical study here in this thesis consists of 499 Korean PLCs, which are a combination of 146 *chaebol* subsidiaries of the 30 largest *chaebols* and 354 non-*chaebol* firms listed on the stock market, in Korea as of 1999. Insider ownership, ownership concentration ratio, ownership composition variables are used as ownership structure variables in the estimations. For a measure of corporate performance, the market to book ratio of asset (MBA) is used in the firm performance and ownership structure estimations. A number of equations are established to estimate the correlation between various ownership structure variables and corporate performance, then estimated by using the piecewise ordinary least squares regressions and the complementary two stage least squares (2SLS) regressions. In terms of the robustness of the results, ordinary least squares regressions are also estimated, and other measures of firm performance are examined.

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[7] Introduced by Tobin, Tobin's Q is in general defined as the ratio of the market value to the replacement value of the firm, which can be measured as the market value of equity and debts over replacement value of net fixed assets and inventory.

$$q_t = 1 + \frac{1}{RC_t} \int_t^{\infty} (p - AC)Qe^{-r(r-t)} d\tau$$

P: Product price, Q: Product quantities, RC: Replacement cost, AC: Average cost
Firm performance can be evaluated by considering Q's size.

Scope and structure of the thesis

This study does not seek to develop a complete theory of corporate value and ownership structure that can be applied in most economies. Rather, it has as its objective the exploration of facts about the Korean corporate sector and how they bear on the issues above in the context of existing theories. This thesis is organised around the theme of the relation between firm performance and ownership structure of the Korean PLCs. This study also focuses on understanding the corporate sector in a particular emerging market and finding out the specific aspects on the issues in that economy. The following chapters not only deal with critical issues and questions related to the main theme of this thesis, but also attempt to provide strategical suggestions to the Korean corporate sector.

Chapter 2 theoretically reviews major firm theories that examine the issues arising from the relationship between ownership structure and corporate performance of the modern corporations, in which ownership is dispersed. It is important to understand the origin and background of the issues to be discussed in the following chapters. It starts from the theory of Berle and Means (1932), which is the first firm theory for the Modern Corporation. Following researchers develop their theories and prospect various aspects to identify the relations between dispersed ownership, control, and firm performance.

Most major studies are based on the U.S. market. There are demands to examine other capitalist markets and even the emerging markets as well since the relationships might depend on unique ways of ownership distribution structures in those markets. There might be different forms of optimal relations for better corporate performance in each market.

Chapter 3 discusses the Korean corporate environment and characteristics and ownership structures of the Korean corporate organisations. It outlines why this study examines the ownership structure issues. The Korean corporate environment is unique as an emerging market. This chapter reviews the history of economic development and political economy in modern Korea. It also focuses on the nature

and corporate governance of the big conglomerates, so called '*chaebol*', including ownership concentration and ownership composition.

Chapter 4 outlines data sources and methodology, and describes the sample with some analytical figures to understand the Korean data set. This chapter also discusses the variables and model specification to be used in the following chapters. Diagnostic tests are provided with statistics to ensure the validity of the empirical results.

Chapter 5 is a core chapter analysing the issues raised in this thesis. This chapter reports the results of the regressions and discusses systematically the main findings of the analysis of the relationship between ownership structure and corporate value for the Korean PLCs based on the models discussed in the last chapter. First, to be reported is the piecewise ordinary least squares linear regression analysis, replicating the break points method in Morck, Shleifer, and Vishny (1988a) and another break points method in Cho (1998), with the alternative break points method found in this analysis. Second, the results of insider ownership regression are discussed. Then the results of regressions between ownership concentration and corporate value are presented. Next, the relationships between ownership composition variables and corporate value are explored. The robustness of the results through the regressions with other performance measures on ownership structure variables is investigated. Finally, the results found in earlier sections are summarised and a conclusion is offered to answer the research questions and hypotheses raised in chapter 1.

Chapter 6 goes one step further to elucidate the similarities and differences of the relationship between ownership structure and corporate value between the Korean *chaebol* firms and non-*chaebol* firms. The Chow-test results show that there is a statistical difference between the regression results of the *chaebol* firms and the non-*chaebol* firms, so that this chapter compares the two groups. It presents the results of the regressions and discusses the main findings of the models established in the last chapter. Discussion focuses on the piecewise ordinary least squares regression results for both the *chaebol* firms and the non-*chaebol* firms with the alternative break points method found in the last chapter. The regression

results, if any, are then presented for the reverse effects of insider ownership on corporate value for both the *chaebol* firms and the non-*chaebol* firms. The regressions between ownership concentration and corporate value for both sample groups are examined as well. The relationships between ownership composition variables and corporate value for both groups are estimated. The robustness of the results is also investigated to conclude this chapter.

Chapter 7 summarises all of the empirical results discussed in previous chapters. This chapter answers the research questions and verifies hypotheses, and it suggests an optimal ownership structure for the Korean corporate sector. Finally, the limitations of the study and suggestions are made for further studies.

Appendices provide some helpful information such as the OECD principles of corporate governance, concepts and problems of corporate governance, specific data on the Korean PLCs, including *chaebols*.

2

Theoretical Review

This chapter discusses the theoretical issues arising out of studies of ownership structure in the governance systems of modern corporations. The chronological overview of the previous theories of firm relating to ownership structure clarifies the theoretical background of the issues to study in this thesis and provides a rationale of the empirical analysis in this thesis.

Public corporation and ownership structure

Large enterprises in the form of public corporations first appeared in the late nineteenth century in the United States, with their number and scale growing rapidly, so that leaders in the twentieth century were at the forefront of modern capitalism. Managers operate public corporations, in which ownership and control are separate and ownership is freely transferable in the stock market and broadly dispersed. The development of the public corporation contributed to the improvement of the capital market, and became a special feature of the modern market economy.

One hundred years later, the position of public corporations appears to be on the wane. If the great mergers and acquisitions of the late nineteenth century were motivated by vertical and horizontal integration to achieve economies of scale and scope, those of the late twentieth century focused on restructuring corporations. Market forces of the nineteenth century saw the emergence of public corporations, but circumstances in the late twentieth century have led to the decline of public corporations. Many economists have sought to explain why corporations succeed or fail in certain industries or countries. This work has elucidated the nature of corporations. Economic historians such as Chandler (1992) have studied the evolution of corporations from a dynamic perspective. The following sections provide a critical review of public corporations.

Change of ownership structure

Berle and Means (1932) pointed out that concentration of economic power and extensive separation of ownership and control occurred in the United States during the twentieth century. They also emphasised that the big corporation is not explained by the classical theory of capitalism.[1] Berle and Means' statistical analysis produced three main results. First, economic power is concentrated in the large enterprises. The 200 largest U.S. companies, except for banks, had assets of as much as $81 billion as at 1 January 1930 totalling 49 percent of the whole of the value of U.S. corporations.[2]. The second result is the new trend of separation of ownership and control. For example, in 1900, 4.4 million investors held 62 billion stocks. The number of investors increased four-fold between 1900 and 1928, so that the average stocks that investors had in 1929 decreased from 140 to 51. In addition, 26 percent of the stock dividend was paid to investors who had annual incomes of less than $5,000 and 50 percent of the dividend was paid to investors who had annual incomes of less than $25,000. Third, managers, at that time, controlled the management of firms. Managers who did not have ownership operated 88 percent of the 200 largest companies. The next section goes one step further to analyse their theory.

Berle and Means' theory: separation from the view of property rights

Berle and Means (1932) proposed three characteristics of modern firms as evidence of their entering the new era as economic organisations. First, big corporations are owned by a number of anonymous investors who hold only a few shares; second, most managers hold negligible (insignificant) quantities of share; third, there are big differences between the interests of shareholders and managers.

On the first characteristic, they found that in the top three corporations of the U.S. at that time - Pennsylvania Railroad, U.S. Steel, and AT & T - the shares of the largest shareholders were less than 1 percent. In the case of the 20 largest U.S. firms, holdings of the largest shareholders were less than 5.1 percent. Moreover,

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[1] Since The Wealth of Nations (Smith, 1776), the so-called 'the English classical school' of Adam Smith, David Ricardo (1772-1823), Thomas Malthus (1766-1834), and John Stewart Mill (1806-1873) led mainstream economics.

[2] Berle and Means noted that America's 200 largest firms constituted 22 per cent of all United States' wealth.

at least 44 percent of the shares of the 200 largest U.S. financial corporations were owned by these small shareholders who did not have any power to control the firms. The second characteristic emerged from the investigation of the first characteristic. The third characteristic emerged out of a study of corporate acts and regulations, and the judgments of court cases. The shareholders' rights were weakening whereas managers' discretion rights were strengthening. They also pointed out that the shareholders do not have the technical and financial abilities of legal reparation. Legal reparation is an effective method of exercising the rights of individuals in a field where the limitation of rights and responsibilities of the shareholders and managers is vague.

"...It has been assumed that, if the individual is protected in the right both to use his own property as he sees fit and to receive the full fruits of its use, his desire for personal gain, for profits, can be relied upon as an effective incentive to his efficient use of any individual property he may possess. In the quasi-public corporation,[3] such an assumption no longer holds. As we have seen, it is no longer the individual himself who uses his wealth. Those in control of that wealth, and therefore in a position to secure industrial efficiency and produce profits, are no longer, as owners, entitled to the bulk of such profits. Those who control the destinies of the typical modern corporation own so insignificant a fraction of the company's stock that the returns from running the corporation profitably accrue to them in only a very minor degree. The stockholders, on the other hand, to whom the profits of the corporation go, cannot be motivated by those profits to a more efficient use of the property, since they have surrendered all disposition of it to those in control of the enterprise...." (Berle and Means, 1932)

Berle and Means also pointed out that if the corporate ownerships are widely dispersed, the conflicts between the shareholders and managers are inevitable. If the shareholders cannot exercise their voting rights, and the directors shirk supervising the managers on behalf of the shareholders, managers might laxly operate the firms, and pursue their own benefits. Berle and Means also raised the owner-agency problem: the conflict of interests between managers and owners affects corporate performance.[4]

Berle and Means concluded that the ownership of wealth with no control, and the control of wealth with no ownership is the logical termination of modern corporate evolution. They also pointed out that there are no factual differences between capitalist separation of ownership and control with widely dispersed

[3] They defined the 200 largest firms as 'Quasi-public Corporations'.

ownerships, and socialism where the most productive assets are monopolised by minor party officials. Therefore, they recognised this as the crisis of capitalism.

Berle and Means suggested that the separation of ownership and control causes managers to abuse the management of power. However, this did not mean a return to the classical concept of property right. Berle and Means claimed it is necessary to define afresh the concept of property right in the modern age, and to make public that definition. This is necessary because, in terms of legal interpretation, directors of public corporations are trustees on behalf of shareholders, consumers, workers, and other interested parties. It could be said that such an emphasis on publicity might conflict with a free-market standpoint. However, the view that publicity was necessary originated from the state of affairs in the U.S. where it is generally recognised that managers of great corporations used to fix prices (the so-called 'administered prices') in a monopolistic and oligopolistic market structure rather than follow supply and demand in a competitive market place.

Berle and Means devised two public policies to overcome the problem of the separation of ownership and control. The first is the recognition by the courts that in corporate activities directors and managers are trustees; and the second is the encouragement of shareholders to participate actively in electing and appointing directors. When trust agreements are entered into, the trustees, who have the legal authority to manage the assets, manage the assets of the participants. If the separation of ownership and control is incorporated into the trust arrangements, courts can then force directors and managers to follow the highest standards of trust responsibility. Of course, this raises the question whether these policies are really applicable, because many shareholders cannot, in reality, easily obtain information about firms owned by themselves through the shares they hold.

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[4] But, Stigler and Friedland (1983) set up the hypothesis that owner-managers do effectively manage regardless of the size of firms, and urge that it is not the owner-agency problem because there is no mention of the incentive system of managers' compensation in Berle and Means' theory.

In the U.S., security laws focusing on disclosure of all information about the value of stocks were established in 1933, and the stock exchange laws were enacted in 1934. Finally, 'shareholder activism' was firmly established.[5]

According to Berle and Means, the legal vacuum, in which there is no ownership and no control of assets in the true sense, means that stockholders can exercise the right to use their wealth only through the disposal of their shares in stock markets. In addition, the activation and modernisation of stock markets brought about a great increase in the liquidity of ownership.[6] That is, stock markets played the most important role in liquidation of private assets. Beard (1933) noted that such a legal vacuum released corporations from the control of strict state regulations of rights and responsibilities. That is, separation of ownership and control occurred without any reference to state government regulation or to the owners.

Berle and Means pointed out that shareholders' rights had been undermined by the judgement of the courts that expanded the professional managers' discretionary rights. Such a separation of ownership and control led to a revolutionary change in the conception of private ownership:

> "Corporations have ceased to be merely legal devices through which the private business transactions of individuals may be carried on. Though still much used for this purpose, the corporate form has acquired a larger significance. The corporation has, in fact, become both a method of property tenure and a means of organising economic life. Grown to tremendous proportions, there may be said to have evolved a "corporate system" as there was once a feudal system which has attracted to itself a combination of attributes and powers, and has attained a degree of prominence entitling it to be dealt with as a major social institution." (Berle and Means, 1932)

While Berle and Means were concerned about the agency problem caused by the separation of ownership and control, later economists offered different theories. Economic historians such as Chandler (1992) have studied the evolution of corporations from a dynamic perspective. The change in the nature of corporations in the U.S. is regarded as revolutionary. The findings of Chandler are discussed in the following section. It was Chandler who suggested the reasons for

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[5] But, Jensen (1989) paradoxically criticises these laws on the basis that they cause public corporations to decline because they restrict shareholders and creditors to passive participation. Monitoring of management and corporate restructuring is, in the long run, the province of banks.

[6] Chase (1933) represents metaphorically that the stock market is like a wheel of the new concept of assets.

the change of corporations since the second Industrial Revolution in the late nineteenth century.

Chandler's hypothesis: a historical explanation of separation of ownership and control

Chandler (1990) argued that a nation's competitiveness relies upon corporate organisation and financial capability. Corporate organisation and management patterns greatly affect both technological development and market structure. No fewer than 800 new types of corporations appeared during the two decades between the late nineteenth century and the early twentieth century in the U.S., Britain and Germany. Those corporations were created and developed under the same conditions throughout the twentieth century. The revolution of transportation and communication, such as the expansion of railways and steamship traffic, together with the development of telegraphic communications by the 1880s, made possible the exchange of large volumes of commodities and information both domestically and overseas. Over the next twenty years it induced the second Industrial Revolution[7], the technological revolution in the twentieth century.

'Never before could manufacturers order large amounts of supplies and expect their delivery within, say, a week; nor could they promise their customers comparable large- scale deliveries on some specific date.' (Chandler, 1992b)

In the middle of the nineteenth century, renovation of production processes produced new industries and made existing industries transform themselves into new types of industries. These included metal production - processing of steel, copper, bronze and aluminium; oil and sugar refining; processing of grain; and new container processing in the form of cans, bottles and cartons. New industries emerged. Recently developed chemical processes produced artificial dyes, medicines, textiles, and fertilisers. The epoch-making event was the introduction of electricity, quickly taken up by new industries which dominated economic growth in urban industrial economies. Competition in international markets was

[7] See Chandler (1992), "...to differentiate it from the "first" that occurred in Britain at the end of the 18th century, through the application of coal produced steam-powered machinery to mining and the production of textiles, metals and metal products."

stimulated. The degree of technological improvement adopted by industries depended on their scale and asset strength; organisations pursuing cost effectiveness of economies of scale and scope soon appeared.[8]

Chandler showed that the new type of modern corporations appeared as a result of following three investment patterns: (1) investing in appropriately sized capital-intensive production facilities in order to benefit from economies of scale and scope; (2) investing in creating networks of marketing, distribution, and purchasing in both domestic and overseas markets; and (3) investing in the employment of managers who were capable of supervising and controlling future production and distribution activities.

' ...effective corporate activities do not mean any plans to make newly improved products and process, or commercialisation. Instead, they mean to build the optimal size of factory that can give the benefits of economy of scale and scope...'(Chandler, 1990)

Chandler (1977) defined this new type of firm as ' modern multi-unit enterprises', that consisted of single-unit factories, shops and marketing branch offices. The actual economies of scale and scope, as measured by throughput, were organisational. Such economies depend on knowledge, skill, experience, and teamwork – on the organised human capabilities essential to exploit the potential of technological processes. In the capital-intensive industries, the throughput needed to maintain minimum scales of efficiency required careful coordination not only of the flow-through processes of production but also the flow of inputs from suppliers and the flow of outputs through intermediaries to final users (Chandler, 1992b).

Three types of investment – expansion of production facilities, marketing, and appointment of professional managers – were used to strengthen the advantages of prior occupation. Late new entrants in the competitive field had to pay fixed costs and "sunk costs" (the original capital investment); moreover, they had to employ

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[8] But the labour-intensive industries such as textiles, lumber, furniture, printing, and publishing, etc. are not included in the second Industrial Revolution. Chandler (1990) notes that technological improvement is not automatic but is achieved as a result of management decisions in favour of: " ... renovation and relocation of producing elements; newly renovated machinery, smelting furnace, distiller, and other equipment; readaptation of production process; addition of interim process for complete goods; increase of using energy (eg, fossil fuel)..."

professional managers who could systematise their firms' structures and who possessed marketing know-how. Under these emerging oligopolistic market structures, pricing policies became one of the most important strategies of most firms. However, as a result of competition with others, most firms increased their functional and strategic efficiency. This was achieved through, for example, more efficient processes, systematic research and development (R&D), improving products' qualities and processes, more effective marketing services, product differentiation, and market entry and exit promptness, all of which influenced market share and profits. Enterprises in these new capital-intensive industries grew under the ways of oligopolistic competition with retention of profits, and increasing horizontal and vertical integration.

Chandler (1990) identified the characteristics of capitalism in the U.S., Britain and Germany that produced two-thirds of all the world's products from the 1880s to World War II. He characterised the U.S. type as 'competitive managerial-capitalism'; Britain's as 'individual capitalism', and Germany's as 'co-operative managerial-capitalism'. He also examined why the economies of the U.S. and Germany overwhelmed that of Britain, arguing that this was not due to investment in physical capital, government, entrepreneurship, culture, and ideology, but to effective professional management and development of an organisational structure for vertically integrated firms. Particularly in his comparison of the U.S. and Britain, he showed that corporate ownership structures strongly influenced the development of industrial capitalism with Britain emerging second best.

Modern U.S. manufacturing firms grew out of the process of mergers and acquisitions (M&A). Under oligopolistic market structures, mutual consent is not secure; moreover, since 1890 the Sherman Act[9] prohibits it. Chandler (1990) interpreted the Sherman Act as giving an impetus to the evolution of modern U.S. manufacturing enterprises. That impetus took concrete shape in M&A.[10] The tendency towards M&A was the most important event in the period from the

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[9], The so-called "anti-trust Act" established in the U.S. in 1890

[10] His explanation for the evolution of M&A is that it was as a result of the establishment of anti-monopolistic laws, the difficulties caused to conferences by the market stagnation of the 1890s, and the activation of the stock market.

1880s to the 1940s for the evolution of U.S. modern enterprises.[11] It reached its peak in the years 1899 – 1902. Moreover, the nation-wide integration had the effect of decreasing the proportion of family management, and for the first time agents of financial institutions were appointed to corporate directors' positions.

In Britain, unlike in the U.S., there were no big manufacturing firms. Production, marketing and distribution, and management control, that were essential to modern multi-level enterprises, were not necessary. This caused the British economy relatively to stagnate. One of the most important factors that has affected the U.K. economy and dominated the nation's enterprise management since World War II, is family ownership and control.

'In most British firms, top managers stay at the biggest factory or the nearest office from the factory, and can meet daily middle managers and work-site managers, so it is possible to directly supervise. In these organisations, the detailed organisational structure and system, which is already generalised in the big enterprises of the U.S. and Germany in 1914, are not necessary…' (Chandler, 1990)

Chandler noted that the explanation for the small size of British enterprises and their less specialised family management systems lay in the relatively small scale of the national economy. In addition, British enterprises had already industrialised and urbanised before the transportation revolution. Britain, small in area and with an advanced transportation network in place by the 1860s, was not as greatly influenced by the expansion of railways and telegraph as was America, a big and new country. Because British companies were small, they could not be pioneers in modern management, accounting, and finance fields. Such enterprises in Britain did not actively make use of economies of scale and scope, investment in production, unique marketing and effective distribution networks, and employment of professional managers. Thus, most British firms remained at the stage of individual management, such as family management, without the benefits of a modern company structure.

In Germany, banks played an important role in raising funds to invest in the attainment of economies of scale and scope. This was quite different from the position in the U.S. and Britain. Appointed as corporate directors, bankers in

[11] M&A in Britain and Germany were just appearing in the 1920s

Germany participated in corporate decision making. In the case of the U.S., the financial market in New York had been a main source of funding for railway construction; on the other hand, in Germany, '*Kreditbank*', a newly established institution, contributed to the supply of funding for bigger manufacturing companies. The minor '*Kreditbank*', the so-called '*Grossbanken*', became the leader in the German financial market. High level bankers were appointed as corporate auditors, and participated in the management. In terms of the legal system, German laws are remarkably different from those in the U.S.: German law not only allowed mutual consent, but in 1897, the high court also judged that mutual consent was not illegal, and was deeply related to public benefits. The cases of mutual consent also increased with 4 cases in 1875, 106 cases in 1890, and 185 cases in 1905 (Chandler, 1990). Under this quite different legal system, there was no incentive for M&A in Germany. Chandler pointed out that overall M&A across industries was likely to be an essential prerequisite of industrial restructuring and rationalisation; however, such restructuring and rationalisation rarely occurred in Germany until World War I.

To summarise Chandler's hypothesis in terms of industrial development – new technology is necessary, but so is investment in corporate manufacturing facilities, marketing services and distribution, and managerial organisations. All three forms of investment are required as sufficient conditions.[12] Chandler advocated first, that separation of ownership and control is necessary in order to facilitate professional managers who have the required unique knowledge and excellence in management, and second, that large-scale investment in production facilities was necessary to achieve economies of scale and scope.

In the previous discussion, it was pointed out that since most modern corporations in the U.S. are controlled by professional managerial systems there could be conflicts of interest between owners and managers. The fundamental cause of the 'agency problem' is that contracts - set by the owners between themselves and managers - which attempt to ensure that professional managers achieve business goals, cannot be prepared and executed without some cost to the owners.

[12] In the firm theory of Chandler (1992a), the essential units of analysis are material and personnel assets; this differs from Williamson's theory (1985) where transaction is a basic analytical unit.

Moreover, with modern corporations, in which ownership can be freely transferred in the stock market, the crucial factor in maintaining corporations is to control the level of the 'agency problem'. This has been the subject of study over the last several decades.

The following section goes one step further in providing an overview of the theories about the mechanisms for obtaining security against agency problems.

Corporate disciplinary mechanism

Jensen and Meckling (1976) presented an agency theory relating to corporate ownership. According to them, an owner-manager gains both the pecuniary benefit and the nonpecuniary benefit from business activities. The optimum mixture of these two benefits is determined at the point of equilibrium between the marginal substitution ratio and the opportunity costs of nonpecuniary benefit.[13] In the case of an owner-manager who owns 100 percent of the shares, the opportunity cost = 1, but if the share α is transferred to outside investors, the opportunity cost = 1 - α. The cost of pursuing the nonpecuniary benefit is decreased, and the demand for transferring shares is increased. If an efficient stock market correctly assesses this situation, the corporate value will be decreased. The decreased corporate value will become the agency cost for any change in the ownership structure.

In addition, Jensen and Meckling showed that the agency problem could occur in the fund raising process through the liabilities. When corporations issue bonds, the creditors' maximum income will be only the principal and interest. On the other hand, the maximum income of debtors to the corporations will be much greater than that of creditors. This asymmetrical income curve is likely to cause corporations to invest in more risky businesses, and creditors to redistribute wealth to other debtors. However, investments in risky businesses induce a decrease in the corporate value and incur the agency cost. Furthermore, the monitoring costs, convincing costs, bankruptcy costs, and restructuring costs can be included in the agency costs. It is expected that any funds or capital raising

[13] The 'nonpecuniary benefit' is similarly considered by Demsetz (1983) as 'On-the-job consumption'.

processes through the issue of stocks or bonds accompanies predictable agency costs, but the size of agency costs depends upon each industry.

Fama and Jensen (1983) contended that separation of decision and risk-bearing functions survives in modern corporations characterised by separation of "ownership" and "control", in part because of the benefits of specialisation of management and risk bearing, but also because of an effective common approach to controlling the agency problem caused by separation of decision and risk-bearing functions.[14] According to them, the corporate decision process has four steps: (1) initiation - generation of proposals for resource utilisation and structuring of contracts; (2) ratification - choice of the decision initiatives to be implemented; (3) implementation - execution of ratified decisions; and (4) monitoring - measurement of the performance of decision agents and implementation of rewards. In general, the corporate decision process is likely to combine the initiation and implementation functions under the term decision management, and the term decision control includes ratification and monitoring. Therefore, they understood that decision management and decision control are the components of the corporation's decision process or decision system. They also stated two complementary hypotheses regarding the relations between the risk bearing and decision processes as follows:

1. Separation of residual risk bearing from decision management leads to decision systems that separate decision management from decision control.[15]

2. Combination of decision management and decision control in a few agents leads to residual claims that are greatly restricted to these agents.

If there are no agency problems between decision managers and residual claimants, the residual claims that allow unrestricted risk sharing have advantages in small as well as in large corporations. This is because when ownership is concentrated, the 'wealth effect' on decision process may induce management

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[14] Risk bearing is induced from uncertainty of corporate performance.
[15] In this regard, Fama and Jensen point out that the decision-making administration and control are distinctive functions, so the expression 'separation of ownership and control' is not correct.

efficiency to decrease.[16] If management is not separated from control over decision making, there could be an agency problem between residual claimants and decision agents, and this lowers the value of unrestricted residual claims.

When the same agents manage and control important decision-making, a possible solution to the agency problem is to restrict residual claims to the important decision agents. The common stocks of unlisted corporations are this type of restricted residual claim, as are the residual claims in proprietorships and partnerships. Restricting residual claims to decision-makers controls agency problems between residual claimants and decision agents, but it sacrifices the benefits of unrestricted risk sharing and specialisation of decision functions. The decision process suffers efficiency losses because decision agents must be chosen on the basis of wealth and willingness to bear risk as well as for decision skills. Furthermore, when residual claims belong only to decision agents, it is reasonable for the residual claimant-decision makers to assign lower values to uncertain cash flows than residual claimants would in corporations where residual claims are unrestricted and risk bearing can be liberally spread across corporations.

However, all decision systems and systems for allocating residual claims incur costs, because most contracts are not cost free in the writing or enforcing. So the optimal organisational formation will be determined on a balance of the costs of decision systems and systems for allocating residual risk against the benefits. For example, in small noncomplex corporations, a combining of decision and risk-bearing functions is efficient, because the benefits of unrestricted risk sharing and specialisation of decision functions are less than the costs that would be incurred to control the resulting agency problems.

Fama and Jensen pointed out that where residual claims are not held by a decision agent, but are concentrated in one or a few residual claimants, minority residual claimants can easily control decision agents, with the residual claimants ratifying and monitoring important decisions and setting rewards.[17] In complex and large

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[16] But, in the case of small noncomplex corporations where decision management and control is concentrated in one or a few agents, it might be efficient to allocate both decision control as well as decision management to the minor agents.

[17] The cases of Korean corporate ownership structures can be included in this criterion. Fama and Jensen note that in this type of ownership structure the function of decision control is separated from the decision

corporations, however, valuable specific knowledge and information relating to decision control are widely dispersed among many inside agents. Effective decision control and management not only include separation of decision control and management, but also involve delegation and diffusion of decision control at different levels of the corporations. Separation of decision management and control limits the individual decision agent's power to expropriate the residual claimants' interests. Diffusion and separation of decision management and control not only have benefits because they allow valuable knowledge to be used at those points in the decision process where it is most relevant but they help control the agency problems of diffuse residual claims. Generally in complex corporations, therefore, the benefits of diffuse residual claims and the benefits of separation of decision functions from residual risk bearing are greater than the agency costs they generate, including the costs of mechanisms to separate the management and control of decisions. Separation of management from control of decisions contributes to the survival of any corporation where the important decision makers do not bear a substantial share of the wealth effects of their decisions, that is, in those corporations where there are serious agency problems in the decision process (Fama and Jensen, 1983).

In most large listed corporations, the residual claims of common stock are unrestricted in the sense that stockholders are not required to have any other role in the corporation, and their residual claims are freely transferable. As a result of the unrestricted nature of the residual claims of open corporations, there is almost perfect specialisation and balance between decision management and residual risk bearing. The unrestricted risk sharing and diversification allowed by common stock contributes, therefore, to survival by lowering the costs of risk bearing services. Separation and specialisation of decision management and residual risk bearing leads to agency problems between decision agents and residual claimants, however, the unrestricted nature of common stock residual claims also allows special market and organisational mechanisms for controlling the agency problems of specialised risk bearing, such as the stock market, the market for takeovers and expert boards.

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management function, and is distinct from the classical corporate form, which combines ownership and control.

As an external monitoring mechanism in a stock market, stock prices are visible signals that summarise the implications of internal decisions for current and future net cash flows. This external monitoring puts pressure on a corporation's decision process to orientate toward the interests of residual claimants. The residual claims are freely transferable and separable from roles in the decision process, so a takeover market is also attributable to the unrestricted nature of its residual claims. A takeover market externally controls the agency problems either by a direct offer to purchase stock (a tender offer) or by an appeal for stockholder votes for directors (a proxy fight). In listed corporations residual claimants delegate internal control to a board of directors. In general, residual claimants keep hold of approval rights (by vote) on board membership, auditor choice, mergers and matters of new stock issues, and delegate to the board management and control of other matters. The board, in turn, then delegates most decision management and control functions to internal agents. It also exercises control over internal agents by maintaining the right to ratify and monitor major policy initiatives and by hiring, firing, and setting the rewards of top decision managers.

For listed corporations, the existence of the stock market and the market for takeovers are effective watchdogs. There are, in particular, some special features of corporate boards: (1) inside board members, drawn from management, are generally more influential than outside members, and (2) outside board members are often decision agents in other complex corporations.[18] When the board is composed of experts, its most influential members are internal managers who have valuable specific information about the corporation's activities. When the internal decision control system works well internal managers nominate outside members of the board. Typically, internal managers use the relevant complementary knowledge, such as expertise in capital markets, corporate law, or technology, which outside board members bring to the board.

According to Fama and Jensen (1983), outside directors have incentives to develop reputations as experts in decision control. Most outside directors of listed corporations are either managers or important decision agents in other complex

[18] See Herman, E.S. 1981. Corporate Control, Corporate Power. Ch2. for data on the characteristics of corporate boards.

corporations.[19] Their human capital value depends on their performance as internal decision managers in other corporations. In carrying out their duties in other corporations, outside board members act as arbitrators in disagreements among internal managers. They also assist in sorting out serious agency problems involving internal managers and residual claimants. Thus, when outside directors have incentives to conduct their missions and do not collude with managers to expropriate residual claimants, separation of top-level decision management and control is most effective.

While Fama and Jensen (1983) discussed various corporate controlling mechanisms for solving the agency problems of separation of ownership and control, and diffusion of ownership in view of property rights, many other studies, such as that by Holmstrom and Tirole (1990) took an institutional approach. They presented four disciplinary mechanisms: internal discipline, labour market discipline, product market discipline, and capital market discipline. The internal discipline focuses on the implementation of compensation to internal managers.[20] According to Clark (1985), internal directors and managers of corporations work for the corporations and stockholders as the trustees rather than as the agents. Under the imperfect contract system, therefore, the board has the authority to intervene in corporate activities, not the stockholders. If board directors are agents, then the stockholders have the ultimate authority to control corporate activities. From the viewpoint of trustees, the independence of directors is important. Independence is rewarded with incentives to carry out the fiduciary duty of monitoring corporate activities without colluding with managers. Stockholders may exercise their right to reconstruct board membership and even sue if directors and managers shirk their trust duties.

A disciplinary mechanism in labour markets helps solve agency problems between managers and stockholders. If, for example, managers expropriate stockholders' interests and temporarily pursue their own profits, eventually the businesses become insolvent, and the human resource value of managers will be reflected in the labour markets. However, this is not likely to happen under the

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[19] See Herman, *supra* note21 at Ch2.
[20] Stock options and the salary system of rewards can be included in the internal discipline.

optimal labour supply condition in labour markets. In normal labour markets, managers tend to choose investments to maximise their income, but these are contrary to stockholders' interests. In this regard, Holmstrom and Tirole (1990) point out that the motives of managers may be a problem in the career management of managers.

The product market disciplinary mechanism helps diminish agency costs, because competition in the product market improves the quality of the corporate environment and the information about corporate activities.[21] In terms of efficiency, competition not only raises the efficiency of corporate activities undertaken by managers who protect their reputations, but also plays a great role in contributing to decreasing agency costs.

Capital market discipline in the form of takeover threat might effectively diminish the agency problem. That is, if managers are not eager to maximise the corporate value, someone might take over the firm and then employ new managers in order to ensure better performance. For their own survival, therefore, managers cannot avoid making an effort to maximise the corporate value. There are, however, prerequisites to this piece of apparent logic. First, the high level of management abuse and misappropriation must be exposed before a takeover can be considered because not to do so is costly. A takeover does not play the same function as the management disciplinary mechanism. Second, if corporate performance can be improved only by takeovers, takeover value relies upon private information and particular benefits. This hypothesis might be verified when the party who takes over a firm only has private information and particular benefits. In real capital markets, however, private information and particular benefits are not the monopoly of the party who wishes to take over a firm. Third, there is the free-rider problem of stockholders who do not participate in a takeover.[22] If the number of free riders is very large, a takeover may not be possible. However, if the party who wishes to take a firm over assesses the firm's value as different from the value placed on it by existing stockholders, a takeover might occur. In other words, if the benefits from a takeover are much greater than the cost of the

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[21] Jensen and Meckling (1976) presented the view that products and market structure, as factors of production, would not influence agency costs.

free-rider problem, a takeover will be possible. That is, takeover possibility will be increased accordingly as ownership dispersion decreases, and then the agency problem will dissolve. Managers' share also influences takeover possibility. When managers' share is small, the takeover possibility increases, and vice-versa.[23]

Even if there were various corporate disciplinary mechanisms to dissolve the agency problems caused by separation of ownership and control, and diffusion of ownership in modern corporations, most agency problems incur great cost. This cost problem became serious in the U.K. and U.S. and it has also occurred in Japan, Germany, and Newly Industrialised Countries (NICs) as well. This problem has led to other adverse effects such as some modern stock markets phenomena discussed in the following section.

The Punter: an investment phenomenon in the modern stockmarket[24]

In general, separations of ownership and control, and widely dispersed ownership have contributed to maximise management capacity; on the other hand, its costs have been considerable. Theoretically, executing efficient disciplinary mechanisms, as discussed in the above section, might reduce agency costs. However, in practice, such mechanisms have not worked accurately, or have been abused by managers. These adverse effects incur additional monitoring expense in an effort to solve the agency problem. Therefore, in the real market, shareholder activism is required in order to activate the disciplinary mechanisms. But there is a problem in that the individual shareholders do not have sufficient voting power to give real weight to shareholder activism in the modern capital market. Individual shareholders' share size in any particular firm is insignificant because they own portfolio investments to disperse risk. In that regard, such individual shareholders are called "punter shareholders" and they do not play any real role in the firms in which they have invested, and their residual claims are freely transferable on the stock market.

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[22] See Sheard (1996) in order to refer to the 'free-rider problem' case in a market. 135p

[23] See Morck, Shleifer and Vishny (1988). They analysed empirically the effects of manager's share on corporate performance.

[24] The U.K. and U.S. stock investor was first called 'the Punter' in *The Economist* (1990,5,5).

Such "punter shareholders", together with control by managers, became the open corporations in the U.S. and U.K. economies. In a 'punter' economy, shareholders cannot monitor management activities effectively. In addition, any management disciplinary mechanisms do not work effectively. Management abuses are likely to happen, and these induce inefficiency of management. The agency problem can be ignored in high growth industries where the benefits derived from separation of ownership and control, and dispersion of ownership, offset their agency costs. In lagging industries, however, surplus is not paid to shareholders as a dividend, but is likely to be invested in inefficient industries and in M&A for management entrenchment. So agency costs of lagging industries are significantly high.[25] 'Mob psychological behaviour' represents an another type of agency problem.[26] In this situation, managers make an incorrect or inefficient decision intentionally and this is followed by a mob psychology response.[27] The managers then try to minimise the risk bearing in terms of the assessment of management performance in labour markets. It also happens in firms owned by owner-managers. In this case, the relationship between outside shareholders and creditors, and owner-managers appears as a principal-agent relationship.

New paradigm for modern corporations

About 70 years ago, Berle and Means presented ways of rectifying the agency problem caused by separation of ownership and management, and wide dispersion of ownership in modern corporations. They suggested that a society needs to participate actively with legal and institutional mechanisms in corporate management, and investors need to be encouraged to have accountability through participation in management.[28] Moreover, firms, in which managers abuse management, need to be reformed. Berle and Means emphasised ultimately to need to divide large open corporations and to recover classical competition and entrepreneurship. Recently, the issue of improving and solving problems relating to corporate ownership structure has been raised again. There could be a couple of approaches: one is the market disciplinary approach, which is centred on Jensen's

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[25] See Jensen (1986) for his hypotheses of surplus cash flow.
[26] See Scharfstein and Stein (1990)
[27] Managers tend to follow major investors or shareholders who have the authority to assess managers.
[28] Modern investors were degraded to ths status of mere 'stock investors' who have no sense of ownership

proposals, and another is the organisational behavioural approach, which is centred on Porter's.

Market disciplinary approach

Jensen (1989) pointed out that open corporations have been the generative power of economic development over the last 100 years in the U.S.; however, they have now not only lost their utility in many areas, but also they have lost effective competitiveness to survive in modern competition. Jensen emphasised that surplus cash flows have led to lower corporate efficiency in low growth industries[29]; open corporations were losing their competitiveness as corporate organisations. He also predicted that open corporations in the air transport industry, in motor manufacturing, motor parts, banking, power generation, food, agricultural implements and transportation would decline. In other words, open corporations in all industries, except for high growth industries, have much demand for reinvestment. This is particularly true of industries such as computer, electrical, bio-tec, pharmacy, and financial service industries, which are all losing their competitiveness.

Jensen argued from an evolutionary viewpoint, that the new type of corporate organisations that dissolve the surplus cash flow problem under financial deregulation and revolution have replaced the U.S. open corporations. The new type of corporate organisations are characterised by high debt ratio, an incentive reward system, high shareholdings of managers and directors, and contracts between owners and creditors for concrete corporate activities including surplus cash. These characteristics are in response to shareholder activism. Financial deregulation and financial revolution have played a critical role in growth of the new type of corporations. For instance, in the U.S., general stock investors alternated their stocks to mutual funds, and sold off ordinary stocks valued at over $ 500 billion (equivalent to 38 percent of all holding stocks during 1984 – 1989). The stocks sold off by general investors were absorbed into Leveraged Buy-Out (LBO)[30], Management Buy-Out (MBO)[31], M&A, and takeovers.

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[29] For example, tyre, oil refining, steel and iron, chemistry, liquor, tobacco, broadcasting, timber and paper pulp industries.

[30] It involves the acquisition of the firm through the use of debt financing. In the U.S. much of the LBO activity was financed with junk bonds.

The credit market ensured that junk bonds were issued and circulated. LBO firms operated corporate activities through the issue of junk bonds, instead of the issue of stocks. However, many experts were concerned about the deterioration of the U.S. financial structure in the 1980s.[32] In fact, the collapse of the junk bonds market and the internal transaction scandal in the U.S., of the late 1980s, incurred considerable agency costs. Nevertheless, the financial market played an important role in the emergence of the new type of corporation in the U.S.

Organisational approach

Porter (1992) found the reason that U.S. corporations' competitiveness is less than that of Japan and Germany is a result of the workings of the capital distribution mechanism. The ownership of open corporations in the U.S. is mainly based on the institutional investors,[33] but the institutional investors are not actively participating in and monitoring corporate activities. Their shareholding activity is characterised by diversification of their shares, for risk control, together with an average holding period of stocks of less than 2 years, indicating an investment pattern that aims at short term profit. The trend towards investing in indexed bonds weakens the motive to gather information about corporate activities.[34] Porter pointed out that this leads to the liquid capital system. On the other hand, in Germany and Japan, shareholder activism, in which banks participate and monitor corporate activities, is strongly exercised. He defined capital in Germany and Japan as dedicated capital. This argument is consistent with the outline of punter shareholder attributes; it strengthens the so-called liquid capital system by institutional investors.

According to Porter, a solution designed to strengthen U.S. corporation competitiveness is to focus on construction of legal and institutional mechanisms to activate the shareholder activism of institutional investors. There is, however, a problem, in a sense, that this solution cannot identify the principal easily. There is also a possibility that the agency problem could occur between managers and institutional investors. A more essential problem is that Porter tries to find a

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[31] Similar to a LBO, but the purchase group is led by the management of the firm.
[32] Non-financial corporations' liabilities increased from $ 835 billion in 1979 to $ 2 trillion in 1988.
[33] Among all listed stocks in the U.S., the proportion of the institutional investors increases from 8 percent in 1950 to 60 percent in 1990.

solution only through a static comparison between the U.S. and Japanese corporations rather than consider the dynamic circumstances. In other words, he pays no attention to interaction between markets and corporate organisational structures with which Chandler and Jensen are concerned.

Summary

Public corporations first appeared in the late nineteenth century in the U.S., and played a very important role in shaping twentieth century modern capitalism. While ownerships were widely dispersed and individual shareholders did not pay close attention to the control of firms, managers exercised their own discretionary control. The agency problem between shareholders and managers was established and this obstructed the development of the modern corporate organisation or public corporation. Many economists have analysed the problems of modern corporations and prospected the alternatives.

Berle and Means (1932) proposed the following three characteristics as evidence that modern firms were entering a new era as economic organisations: first, big corporations are owned by a large number of anonymous investors who hold just a few shares; second, most managers hold insignificant quantities of shares; third, there are big differences between the interests of shareholders and managers. They also noted that the ownership of wealth with no control and the control of wealth with no ownership is the logical conclusion of corporate evolution. They suggested two public policies to overcome the problem caused by separation of ownership and control. The first is that courts monitor corporate activities on the basis of recognising that directors and managers are trustees; the second, is that shareholders be encouraged to participate actively in electing and appointing directors.

Chandler (1990) contended that the competitiveness of modern nations relies on corporate organisation and financial capability. He proposed that corporate organisation and management patterns largely affect technological developments and market structure. He identified three types of investments in modern

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[34] See Wrase, J.M. (1997)

corporations: investing in production facilities, marketing, and professional managers. Those strengthened the advantages of prior occupation. Comparing the characteristics of modern corporations in the U.S., U.K. and Germany, he emphasised that new technology is a necessary condition, but that the three types of investment should be seen as sufficient conditions.

Jensen and Meckling (1976) pointed out that an 'owner-manager' enjoys both pecuniary benefit and nonpecuniary benefit from business activities. The optimal mixture of these two benefits is determined in equilibrium with the marginal substitution ratio and the opportunity costs of nonpecuniary benefit. They also showed that agency problems could occur through the liabilities in the capital supply process.

Fama and Jensen (1983) pointed out that separation of decision and risk-bearing functions survives in corporations, in part because of the benefits of specialisation of management and risk bearing, but also because of an effective common approach to controlling agency problems caused by separation of decision and risk-bearing functions. The corporate decision process has four steps: initiation; ratification; implementation; monitoring. They understood that decision management and decision control are the components of the corporation's decision process or decision system.

Since the presentation about 70 years ago by Berle and Means of ways to rectify the agency problem - caused by separation of ownership and management, and wide dispersion of ownership in modern corporations - the issue of mitigating agency problems relating to corporate ownership has been a matter of wide discussion. There were two proposed approaches: the market disciplinary approach, centred on Jensen's proposal, and the organisational behavioural approach, centred on Porter. Jensen (1989) pointed out that open corporations have been the generative power of economic development over the last 100 years in the U.S.; however, they have now not only lost their utility in many areas, but they are also no longer effective corporate organisations in modern competitive economy. He pointed out the new type of corporate organisations are characterised by high debt ratio, an incentive reward system, high shareholdings

of managers and directors, and contracts between owners and creditors for concrete corporate activities including surplus cash flows. These characteristics are due, in part, to shareholder activism. Porter (1992) noted that the lower level of competitiveness of U.S. corporations compared with Japanese and German corporations was caused by the capital distribution mechanism. He presented a solution to strengthen the U.S. corporations' competitiveness by focusing on construction of legal and institutional mechanisms to activate the shareholder activism of institutional investors.

3

The Korean Corporate Organisation: The Analytical Issues

This chapter presents in some detail the historical background and general characteristics of the Korean corporate organisations. The nature of the Korean corporations is discussed with a focus on *chaebols*. The issues relating to corporate governance including the ownership structures of the Korean corporate organisations are then discussed. Prior to an empirical analysis, this chapter sets out its aims which are to find out how and why each hypotheses for this particular emerging market are raised for examination in this thesis. This chapter justifies the validity of the verification of the hypotheses in terms of the application of theories, which are applied in the analysis in subsequent chapters. The insider ownership structure of the Korean PLCs reveals a particular phenomenon in Korea and leads to establish the hypotheses 1 and 2. The sections of the ownership concentration and ownership composition provide respectively the reasons why the hypotheses 3 and 4 are established.

To develop an understanding of the circumstances of the emerging market the first section describes the historical background and political economy in Korea focusing on the corporate sector. The characteristics of the Korean corporations within the corporate environment are broadly discussed, then the characteristics of the *chaebols* – their remarkable growth, close relationship with government, high financial leverage, insider ownership and control, excessive diversification - are also discussed in the second section. The third section goes one step further to discuss the *chaebol* issues: economic concentration, corporate governance, and overcapitalisation. The ownership structure issues with ownership concentration and composition are considered in the fourth section. Finally, as a challenge in the new economic era three ways of changing the Korean corporate sector are proposed in the final section.

Historical overview and political economy

Rapid economic development over the last four decades in Korea was made possible by the export-oriented growth strategy of the previous Korean government. The annual GNP growth rate from 1963 to 1993 was 9.4 per cent on average, which was the fastest among the developing countries for the same period.[1] The leading type of business entity in this rapid economic growth was the big corporation group, the so-called *'chaebol'*, which can be defined as 'a business group, which is owned and controlled by a person and that person's family'. This definition coincides with Morikawa's (1980) definition of a *zaibatsu*,[2] as 'exclusively owned and controlled by the family', and fits reasonably with the rest of the definition, 'diversified industrial firms', since it is a business group.

Korean corporate organisations - most of the big companies belong to *chaebols* - were developed as the tools and results of economic growth by the Park Chung-Hee government in the 60s. Park's military background government generated new economic policies and a unique government-business relationship (see Yoo, 1997 for details). The government forced private businesses to become the engine for development of Korea's lagging economy in the early 60s. Therefore, the relationship between government and business was put in place - "government, the leader – business, the follower". This relationship had been widely discussed as a "government-led, *chaebol*-centred economic growth model" for the developing nations. In the 1960s, under the strong export drive and protection policies of the government, most corporations focused on exports. In the 1970s, the heavy and chemical industries (HCI) drive was one of the most influential industrial policies. This HCI drive caused consolidation of the Korean industrial organisations dominated by *chaebols*. The HCI drive created an environment in which active participation in the industries targeted by the government was an essential for any corporations wishing to grow. It induced dramatic growth for a

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[1] The average annual GDP growth rate of low- and middle-income countries was recorded as 5.9% during 1965-80 and 3.3% during 1980-90. The average annual GDP growth rate of high-income economies was recorded as 3.7% during 1965-80 and 2.9% during 1980-91. However, the annual average GDP growth rate of Korea was 9.9% during 1965-80 and 9.6% during 1980-91 (World Bank, 1992; 1993) (See Table A3.1 and A3.2 for the national accounts)

[2] See Kim, B.H. 1991. The Genesis of the *Chaebol* and Entrepreneurship: the Japanese feudal family-based rich merchants until World War II.

large number of big businesses. In view of the economies of scale of many HCIs, it was believed that in order to compete well in the markets the size of production should exceed minimum efficiency scales (Yoo, 1997). This led the government to protect the monopolistic positions of many firms in the industry.

In the 1970s, c*haebols* grew rapidly in terms of the number of subsidiaries and their size. The number of subsidiaries of the 30 largest c*haebols* increased from 126 in 1970 to 429 in 1979 (Yoo, 1998). The industrial restructuring of the 1970s caused c*haebols* to diversify their businesses into new industries with the support and arrangement of the government. Policy loans from state-controlled banks and equity investments from other subsidiaries within the same business group generally financed most diversifications of the 1970s. Big companies were able to grow into conglomerate groups that expanded across most important industries, such as manufacturing, construction, petrochemicals, automobiles, retailing and the non-bank financial sector. By the end of the 1970s, most conglomerates had evolved into c*haebols* characterised by the following: family ownership, control, and management; many subsidiaries under a single control; high degree of diversification; cross shareholding among the subsidiaries within a group through equity investments; and mutual debt guarantees among subsidiaries within a group (Yoo, 1997). Since the *chaebol* were accountable for a large share of the Korean economy's assets, sales and debts, most industrial policies were inevitably connected with them. Strategic concerns in oligopolistic markets forced them to expand their capacity. They became larger and larger, generating the notorious 'too-big-to-fail' legacy of the *chaebol*. Moreover, the government controlled the banking system: it allocated financial resources so as to support big businesses and sometimes to resuscitate them. As a result, the *chaebol* ended up with high debt-equity ratios through over-capitalisation.[3]

From the early 1980s an anti-monopolist policy began to focus attention on regulating economic concentration. The 'Regulation on Monopoly and Fair Trade Act' was enacted in 1980. The regulations covering M&As and big business groups were introduced in 1986. The regulations covering market concentration and cross-debt guarantees among *chaebol* subsidiaries were introduced in 1990

and 1992, respectively. Table A3.3 presents the main regulations regarding economic concentration as of 1990. The Fair Trade Commission selected the top 30 *chaebols*, based on the size of their assets, as its main target of regulation. The government also put restrictions on loans to the *chaebols* to prevent the concentration of financial resources. During the 1990s, it introduced the business specialisation policy, inducing the *chaebols* to limit diversification to 2-3 specialised business lines. These regulations, however, were not as effective as expected. Both the net assets and cross holdings of the *chaebols* have increased by 2.1 times during 1993-1997. Market concentration is still high-the top 30 *chaebols* accounted for 46.88 per cent and 46.62 per cent of total sales in 1988 and 1997, respectively (Hwang, 1999b). The top 30 *chaebols* accounted for 24.2 per cent and 21.5 per cent of total financial loans in 1990 and 1995, respectively. Throughout the 1980s and 1990s, *chaebols* dominated the Korean economy, even though economic growth fluctuated as a result of many factors like the business cycle, industry restructuring, changes in the subsidised credit supply to *chaebols* and privatisation of state-owned enterprises. Without any serious challenges or competition, *chaebols* led the high growth of the Korean economy in the 1980s and 1990s. There were a few exceptions: a number of *chaebol* bankruptcies, such as the Kukje, Myungsung, Yulsan, Duksan, Yuwon, and Hanyang group.

The financial crisis in 1997, however, changed the environment of the Korean economy. The IMF program for the financially distressed Korean economy entailed the implementation of global standards and the liberalisation of the economy. Korea not only strengthened the standards and legal frameworks of its economy to global levels, but also opened up its economy to the world. Restructuring of the corporate sector was one of the most important tasks in the recovery of the economy. Past industrial policies that had contributed to the economic growth, but which had failed, were totally investigated to improve the economy and adjust it to fit the era of global competition. Since then, the Korean corporate sector has tried to renovate its weak corporate governance system by various approaches. Before discussing the corporate sector, the general corporate environment is first outlined in the following sub-section.

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[3] See the characteristics of the *chaebols* section in detail.

Corporate environment

According to the Industrial Census of 1989 in Korea, there were 61,723 companies with over five employees in Korea: among them were 14,600 business incorporates, 247 other incorporates, and the rest were individual businesses. The average number of employees per firm was about 52, the average production per firm was about 2.19 billion won, the value-added per firm was about 799 million won, and the tangible fixed assets per firm was about 778 million won. However, these average figures do not accurately reflect the full economic environment, because only 1,363 big firms, no more than 2.21 percent of the number of all firms with over 300 employees, produced 60.50 percent of total products (See Table 3.1). In fact, except for a few state-enterprises such as the Korea Electric Power Corporation, the Korea Communication Corporation, the Korea Heavy Industry Corporation and the Po-Hang Iron and Steel Company, most large Korean firms belong to *chaebols*. In 1990, 687 firms were singled out as the 50 largest *chaebol* subsidiaries, constituting more than half of the total of big companies in Korea. Thus, in order to understand the Korean corporate organisation, it is necessary to focus on studying the *chaebol*.

Table3.1 Mining and Manufacturing firms in Korea (firms with over five employees)

(Unit: firm, person, and billion won)

	1984	1988 (Average per firm)		Over 300 employees (%)	
Number of Firms	43,428	61,723		1,363	(2.21)
Number of Employees	2,431,310	3,208,100	(51.97)	1,360,671	(42.41)
Production	72,297	135,689	(2.19)	82,069	(60.50)
Value Added	25,361	49,329	(0.799)	28,360	(57.49)
Tangible Fixed Assets	25,178	48,004	(0.777)	30,256	(63.03)

Source: Korea Economy Planning Organisation, Investigation and Statistics Section, '1988 Industrial Census Report', 1990.

Understanding the Korean corporate organisation

As discussed earlier, for the last few decades the big businesses, called *chaebols,* have led and represented the Korean corporate sector with enormous contributions to the national economy. Most *chaebols* manufacture and export goods across a broad range of industries. As of 1999, the 30 largest *chaebols* had, on average, 23

subsidiaries in 19 business areas. These *chaebols* used to rely heavily on debt capital, so that market adaptability was weakened due to the high financial risk. Subsequently they became insolvent and bankrupt when the market became stagnant (See Kim, 1990; YK Lee, 1985, and 1992). Furthermore, most firms in *chaebols* were financially linked with other subsidiaries on cross-shareholding and debt-payment guarantee; one firm's insolvency induced, in turn, another firm's insolvency like a chain reaction. This situation was a serious national economic problem.[4]

Table 3.2 Financial details of the 30 largest *chaebols* 1987-1999

(Unit: Billion Won)

	Total Assets	Shareholders' Equity	Capital Stock	Total Sales	Net Income	Number of Subsidiaries
1987*	56,633	10,328	6,938	72,946	321	493
1988*	66,526	13,224	8,629	84,460	872	504
1989	81,742	18,002	10,525	94,507	1,328	535
1990	96,692	26,355	13,649	104,223	1,543	557
1991	125,283	31,688	16,090	126,339	1,546	570
1992	156,278	37,234	17,954	157,964	1,250	590
1993	178,466	50,105	22,232	212,164	1,615	604
1994	199,477	57,735	24,439	248,020	3,593	616
1995	233,445	56,974	24,036	245,136	3,579	623
1996	286,924	70,542	26,802	319,996	6,315	669
1997	348,364	75,183	29,654	374,992	360	819
1998	435,318	75,592	32,305	441,485	-4,383	804
1999	472,757	101,997	42,145	479,331	-22,119	686

Note: Figures in 1987* and 1988* are as of the end of 1986 and 1987.
Other figures are as of 1st of April each year.
Source: Korea Fair Trade Commissions, 2000

To understand the nature of the *chaebols*, the following financial figures are provided. Table 3.2 shows details of the 30 largest *chaebols* (1987- 1999) with most factors significantly increasing from 1987 to 1999. Specifically, total assets increased sharply from 56,633 billion won in 1987 to 472,757 billion won in 1999, with an overall 834% rise, and shareholders' equity, capital stock, and total sales also increased by over 600% between 1987 and 1999. However, net income

[4] This kind of circumstance is like a fleet of vessels that are connected together with rope which offers protection from a storm; on the other hand, fire occurring in one vessel could destroy the whole fleet.

and the number of subsidiaries began to decrease suddenly from 1998, most likely because of the financial crisis in 1997.

Since the *chaebols* strongly influenced the national economy, the economic concentration issues have been continuously discussed. But the important role of the *chaebols* in creating rapid economic growth cannot be denied. In fact, they operated conglomerate managements, pursued economies of scale and scope, produced an internal capital market, and invested in high technology industries through mutual capital supply and debt guarantees. Moreover, *chaebols* not only internally trained competent professional managers and provided an effective labour market through their competition, but also produced excellent entrepreneurs outside the *chaebols* (Lee, YK. 1996).

Characteristics of the Korean *chaebols*

From the traditional Anglo-American point of view, the *chaebol* is often recognised as an abnormal type of business organisation because of its ownership, financing, excessive diversification and close connection with the government. The Korean firms, like those from other non-Anglo-American countries, have been usually "viewed through a looking glass that has an American frame" (Cottrell, 1997). It is true that the modern corporations first emerged in the U.S., but the view that their institutional features should be the norm is less acceptable. Chandler (1990) pointed out that international difference in firm organisation have been an essential feature in the development of capitalism during the last century or so. Moreover, the judgement that something is abnormal can be misleading when what is normal is not defined clearly, which is the case in the currently prevailing discourse. In fact, the Korean *chaebols* have some similarities with other countries' businesses, as well as some unique characteristics. The differences and similarities do not directly connect to any judgement of whether or not they are worse than others. While directly dealing with these fundamental methodological issues may be beyond the scope of this study, this section simply addresses the *chaebols* indirectly by factual investigation. The next sub-sections discuss those major characteristics of the *chaebols*, which are related to the issues analysed in this thesis.

Economic concentration. It is arguably agreed that the Korean *chaebols* are the businesses of the fastest growing business conglomerates in the world. Within only three decades, Korea became the country famous for 'conglomerates', and the economic concentration seems to have been recognised as relatively high. The total sales of the 50 largest *chaebols* was 28,502.6 billion won in 1980, and in 1996, sales of the 30 largest *chaebols* amounted to 374,992 billion won. Their total sales amounted to as much as 96.2 per cent GDP in 1996 (see Table 3.3; B.H. Kim, 1991). Further discussion of international comparisons is provided in the section dealing with the nature of the *chaebol* issues.

Table3.3 The total sales of the 30 largest *chaebols* and GDP

(Unit: billion won)

	Total Sales of the 30 *Chaebols*	GDP	Proportion (%)
1993	248,020	267,146	92.8
1994	245,136	305,970	80.1
1995	319,996	351,975	90.9
1996	374,992	389,813	96.2

Source: Korea Fair Trade Commission, 2000 and Economic Bulletin, 20:12, 1998

Crony relationship with the government. Together with the *chaebol* system, the government-*chaebol* relationship has been identified and criticised as a pathological element of the traditional Korean capitalism that was a root cause of the recent crisis. The early government's export-led policy and HCI drive provided the *chaebols* with incentives in the domestic market (KH Jung, 1989). Initially, the Korean economic development policy took precedence over everything. Sometimes, therefore, *chaebols* were exhorted to take over financially failing firms, or to invest in risky businesses on a political rather than economic basis. Many *chaebols* that followed this 'stick and carrot' policy settled, and expanded their businesses internationally in order to take advantage of economies of scale in production and marketing (O.Y. Kwon, 1997).[5] After the crisis, this cronyistic connection was well known both inside and outside the country. The cronyistic connection was concealed by the past economic success under the guise of 'government-led development policy'. However, this non-market-based

[5] 'Stick and carrot' policy is a metaphorical word, which means 'toughness and moderateness'.

adhesion between politics and economics finally faced its limitation in the global liberalisation era.

The reasons for the failure of the crony relationship are many. One of those is the *chaebols*' weak competitiveness against global competitors in both the domestic and international markets. Under the protection of the government, most *chaebols* did not have to improve their competitiveness because most of their businesses were determined and offered by the government. Another reason might be corruption (Chang, 2000). The traditional Korean government-*chaebol* relationship may have generally been corrupt, except in the key manufacturing sectors. The corruption that existed was a generalised rather than a cronyistic one. Since the late 1980s, however, under the new government, cronyistic relationships have spread into some key manufacturing sectors. In the traditional system, it was very difficult to change the course of industrial policy for cronystic purposes. This weakened the industrial policy, and the policy guidelines were now much less clear. The corruption surrounding Hanbo's entry into the steel industry and the collapse that occurred in the early stage of the recent crisis is the best example.

Insider ownership and control. It is often argued that the Korean *chaebols* are owned and controlled by the founders' families and the cross-shareholding by their subsidiaries in a group (Yoo, 1995). According to Table 3.4, the mean of the in-group shareholding ratio of the 30 largest *chaebols* from 1987 to 1999 reached nearly half of the total number of shares, including family shares and cross-shareholdings. Besides, the owner-managers enjoyed enormous controlling power because of a lack of internal and external monitoring. Except for the Kia Group, most *chaebols* are managed by the founders, the so-called '*Chong-su*', or their families as top management. In some *chaebols*, for example, Hyundai, Samsung, LG, SK, Hanjin, Kumho, and a number of others, founders have already passed on their powerful positions to their descendants (B.H. Kim, 1991).

One important note to be made here is that, after the recent crisis, insider ownership rose again to 50.5 per cent as of 1999 (from 44.14 per cent as of 1996), because of the marked increase in the share of cross-subsidiary holdings, which

rose from 33.8 per cent 45.1 per cent in 1999 despite a reduction in the shares of the controlling shareholders and the relatives from 10.3 per cent to 5.4 per cent.

Table 3.4 In-Group shareholding ratio of the 30 largest *chaebols*

(Unit: per cent)

	Largest shareholder and the relatives	Subsidiaries	In-Group shareholding ratio
1987	15.8	40.4	56.2
1989	14.7	31.5	46.2
1990	13.7	31.7	45.4
1991	13.9	33.0	46.9
1992	12.8	33.4	46.2
1993	10.3	33.1	43.4
1994	9.7	33.1	42.7
1995	10.6	32.8	43.3
1996	10.32	33.82	44.14
1997	8.5	34.5	43.0
1998	7.9	36.6	44.5
1999	5.4	45.1	50.5
Mean	11.14	34.92	46.04

Source: Korea Fair Trade Commission

This sudden rise in insider ownership, especially in cross-subsidiary holdings, may seem paradoxical given that the recent corporate reform measures were supposed to remedy those features of the *chaebol*, such as excessively high insider ownership, by liberalising and opening-up the stock market. However, the fact is that the reform created even bigger incentives and opportunities for increased insider ownership. In terms of incentives, the most important was the allowance of hostile take-overs, which led the *chaebols* to increase insider ownership for defensive purposes. In terms of opportunities, the legalisation of investment funds allowed the *chaebol* to increase their insider ownership by mobilising large-scale funds, a disproportionate part of which they invested in their own subsidiaries (Chang, 2000). Thus, control over the *chaebol* became more dependent on cross-subsidiary ownership.

This raises the question as to why the Korean *chaebols* have chosen to retain such a high proportion of insider ownership by way of cross-subsidiary shareholding. If

the reason is to maintain corporate control, it raises the further question of what level of insider ownership is necessary for the maintenance of corporate control, which is one of the main issues to examine here in this thesis. Changes in the share of insider ownership are provided in Table A3.4.

Excessive diversification. The *chaebols* have widely expanded the scope of their businesses into related and unrelated areas, which are often described as the "octopus leg" expansion strategy. Thus, by looking at the changes in the number of businesses and subsidiaries, the expansion is easily noted (see Table 3.5). While in 1970 the 30 largest *chaebols* had on average only 4.2 subsidiaries each, by 1999 the number had increased to 22.9 in an average of 19.07 business categories. The number of businesses in a *chaebol* on average in 1987 was 9.9. Most of the subsidiaries are concentrated in the heavy and chemical industries, textiles and apparel, and food and beverages. Currently, *chaebols* focus on the motor, electronic appliance, computer, and telecommunication industries. But government regulation does not permit *chaebols* to own any nation-wide commercial banks in Korea (O. Y. Kwon, 1997).

Table 3.5 The number of businesses and subsidiaries on average of the 30 largest *chaebols*

	The number of businesses on average	The number of subsidiaries on average
1987	9.9	16.4
1988	11.3	16.8
1989	11.7	17.8
1990	12.3	18.6
1991	17.9	19.0
1992	18.3	19.7
1993	19.1	20.1
1994	18.5	20.5
1995	18.83	20.8
1996	19.53	22.3
1997	19.11	27.3
1998	19.74	26.8
1999	19.07	22.9
Mean	16.56	20.7

Source: Korea Fair Trade Commission

Most subsidiaries, however, do not perform equally well. Most *chaebols* are actually much more focused on a few core businesses. In other words, large numbers of their subsidiaries in a wide range of industries are not profitable. Between 1988 and 1995, the 4 largest subsidiaries of the top 4 *chaebols* generated an average of 79 per cent of their total sales. Particularly in the case of *Samsung*, the four largest subsidiaries accounted for about 90 per cent of sales, which is a surprising proportion of the total number of its subsidiaries (50 as of 1995). The other smaller *chaebols* show similar trends in concentration on a few core firms (Chang, 2000). Profitable firms and loss-making firms are mixed up in a *chaebol* by using cross-shareholding and cross-debt guarantees for the strong interlocking relationship among them (see Table A3.5,6, and 7).

In addition, unrelated diversification can be another feature of the *chaebol*. The *chaebols*' diversification strategy is best described as an alternating pursuit of related as well as unrelated diversification. Chandler et al. (1997) pointed out that big businesses had to integrate the production of many basic intermediate goods in order to secure necessary inputs as well as to exploit the economies of scale. Lee and Lee (1990) also empirically found that there seems to be a positive correlation between related diversification and the size of the *chaebol*. It, however, does not mean that unrelated diversification is not useful. Economies of grouping creates financial synergies which enable the *chaebol* to mobilise large-scale investment funds effectively in a short time when such funds are required for investment in facilities, human resources, and organisational capability, all of which are essential for achieving economies of scale and scope (Chandler, 1990). The related information is provided in Appendix.[6]

High financial leverage. The high debt-leveraged financing of Korean big businesses, mostly *chaebols*, has been often criticised as a primary cause of the recent crisis. Historically, the owners and their families, who founded their businesses in the 1950s-1970s, tried to maintain control rights while relying on outside investors to accommodate new investments and expansion. The stock market was so weak that it was unable to provide sufficient capital for the rapidly growing Korean firms. However, the big commercial banks that are indirectly

controlled by the government supplied large-scale loans to particular businesses in order to build up strategic industries such as heavy and chemical industries that needed large-scale investment, thus causing enterprises to be more debt-dependent. Thus, the main entities that caused the current high debt ratios are not only the businesses: businesses had no choice but to go ahead with such leveraged expansion for the sake of national economic growth. This financial vicious circle caused the debt-equity ratio to rise until 1997 before it started decreasing under reform pressure from the government (see Figure A3.2). It is, however, also true that no one can say that debt financing is always better than equity financing, itself the subject of a well known and inconclusive debate (see Harris and Raviv, 1991; Brennan, 1995). It is difficult to say that there is, therefore, an optimal level of corporate leverage. Moreover this issue is beyond the scope of this thesis. A World Bank study reporting the capital structure of selected countries between 1980 and 1991 (Demigruc-Kunt and Maksimovic, 1996) shows that, at 366 per cent, the debt-equity ratio of Korean corporations is not exceptionally high compared with that of other advanced nations such as Japan (369 per cent), France (361 per cent), and Italy (307 per cent), and much lower than Norway (537 per cent), Sweden (555 per cent), and Finland (492 per cent).[7]

A more serious problem emerges when high leverage is accompanied by excessive investments. This was the case of *chaebols* and the problem was exacerbated as a result of many *chaebols* earning less than their economic costs. In fact, most *chaebols* recorded negative economic value-added results during the several years before the crisis (The Korea Stock Exchange, 1997, see Figure A3.4). Excessive investments in Korea brought about a serious capital shortage compared with Japan and Taiwan (see Table A3.14). Korea had a capital shortage until the 1997 crisis.

Korean firms have been heavily reliant on foreign capital, so that they are vulnerable to the instability of international financial markets. Korea has twice experienced a structural upward period in its corporate debt-equity ratio. The debt-equity ratio surged after the international financial turmoil following the

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[6] See Table A3.8,9,10,11, and 12, and Figure A3.1.
[7] See Table A3.13 and Figure A3.3.

collapse of the Bretton Woods system in the early 1970s, and again following the debt crisis in Latin America in the early 1980s. However, this kind of fluctuation did not happen in Japan.[8]

Another problem occurred when firms borrowed debt-guarantee money from the banks. The system of so-called 'mutual payment guarantees', has been criticised as one of the primary sources of high-leveraged management. That system is one in which the *chaebol* subsidiaries in a group promise each other to reimburse lenders if their brother firms default on a loan. Most *chaebols* abused this system to borrow more money. However, as one of the conditions outlined in the IMF agreement, they were required to clear any debt-payment guarantees completely by the end of March 2000. Through diversified means such as the redemption of debts, the provision of more collateral, and risk-adjusted interest rate increases, the *chaebols* succeeded in lowering the amount of debt-guarantees from 33.6 trillion won in 1997 to 9.8 trillion won in 1999, which accounts for only 9.7 per cent of their capital (see Figure A3.7). The debt-guarantees were no longer a problem by the end of March in 2000.

The nature of the *chaebols*: The issues

In the last section, the general characteristics of the Korean corporations, mostly *chaebols*, are discussed. This section goes one step further to analyse the nature of the *chaebol* issues that have been raised and argued by both public and academics in detail. Coase (1937) launched the modern theory of the firm by asking in the "Nature of the firm", "If markets worked perfectly, why would there be firms?" Coase argued that firms would exist only in environments in which firms perform better than markets could. Markets in some environments would not perform efficiently because of 'transaction costs'. This is very useful insight to understand why *chaebols* exist and what determines what they do. Coase (1960) pointed out that in a regime of zero transaction costs, an assumption of standard economic theory, negotiations between parties would lead to those arrangements being made that would maximise wealth. He also pointed out that the role of government is

[8] See Figure A3.5 and A3.6.

finding and maintaining the efficient structure of property rights. A market-based *chaebol*-restructuring plan can be suggested from this insight.

The economic concentration issue

Most existing issues and policies concerning *chaebols* are often discussed with the matter of economic concentration. It has been known that such concentration, which is defined by the proportion of large corporations in the national economy, is relatively high in Korea. In particular, business conglomerates in Korea are unique organisations, with the economic concentration generated by the *chaebols* generally being morally recognised as a distorted phenomenon. In this regard, the government controlled the 30 largest *chaebols* under the Fair Trade Laws and Credit Management Policies, and it considered restraint of the economic concentration as its prime *chaebol* policy. An understanding of the attitude of a Korean government organisation (Korea Fair Trade Commission) towards economic concentration may be gained from the following:

> "In general, 'economic concentration' is variously defined by.... 'corporate concentration (general concentration)', ... 'market concentration (industrial concentration), ... 'ownership concentration', ... 'diversification'. We agree with these conceptions for the Korean economic concentration, which has the unique characteristics that 'minority people' actually own and control a number of big firms with their family, manage the group businesses rather than individual business, expand and diversify their business, and monopolistically dominate the markets."[9]

Thus, according to above comment, the government recognised the *chaebol* problem not only from the point of view of restraining economic concentration, but also from a general approach to solving every type of concentration problem. However, there are contradictions in this. For example, 'the business category specialisation' policy, which is the one of the policies of economic concentration restraint, would force *chaebols* to concentrate on their core businesses, but it actually strengthened the monopoly and oligopoly, and interrupted free market competition. Therefore, 'the business category specialisation' policy conflicts with 'the market competition encouragement' policy. These contradictory policies ultimately induced the financial crisis in 1997 (Hwang, 1998).

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[9] from 'Fair Trade Annual Report, 1996' and 'Fair Trade White Paper, 1997'

After the crisis of 1997, the new *chaebol* policy was launched. In 1998, a five-point accord between the Dae-Jung Kim government and the *chaebols* was concluded. It proposed the following: enhancing transparency, clearing up the mutual payment guarantees, improving the financial structures, reforming core businesses, and strengthening the accountability of controlling shareholders. The accord is a general improvement compared with previous policies because it emphasises transparency and control of shareholders' accountability as corporate governance matters. Nevertheless, the policy has not shifted much in terms of economic concentration. It still focuses on restraint of economic concentration, especially with the 30 largest *chaebols*, rather than encouraging free market competition. For instance, the policy of restraining economic concentration, which is a discriminatory policy based on corporate size, still exists. So too do the combined financial statements, clearing up the mutual payment guarantees, dismantling the chairman's office, and restriction of internal transactions. (Hwang, 1999).

There are two issues regarding the policy, which places priority on restraint of economic concentration. First, the phenomenon of economic concentration does not seem to occur only in Korea. Table 3.6 provides a comparison of the largest conglomerates of the OECD countries. In terms of employment, the proportion of Korea's 30 largest *chaebols* of the total is 18.5 per cent, which is lower than those of the U.K., Germany, the U.S., France, and Sweden. In addition, in the U.K., France and Sweden, the proportion of sales in their manufacturing industries is higher, at 42.5 per cent, than in Korea. Conversely, as regards the total assets of the largest conglomerates, Korea's concentration is much higher than the total assets of those of other nations.

Thus, the results are varied in relation to the concentration measures. But, assets and sales are unstable factors easily affected by international currency value changes or corporate accounting systems. It can be supposed that the employment factor, as a real variable, is more applicable to international comparison. In this regard, the Korean *chaebols*' economic concentration is not higher than the other OECD advanced nations, except for Japan. Furthermore, it should be noted that the Wallenberg family in Sweden control as much as 40 per cent of the whole

Swedish stock market value through a pyramid type ownership structure and cross-shareholding (Morck et al, 1998)

Table 3.6 Comparison of the economic concentration of the 30 largest conglomerates in the selected OECD nations

(Unit: per cent)

	Korea	U.S.	Japan	Germany	U.K.	France	Sweden
Employment	18.5	22.9	15.0	31.7	32.6	36.9	58.6
Sales	42.5	34.6	25.8	38.8	48.6	46.2	65.5
Assets	46.5	22.4	22.7	22.7	29.5	28.6	37.3

Note: 1. Figures for France and Sweden are respectively for the 20 and 10 largest conglomerates.
2. Employment = the total number of employees of the 30 largest conglomerates / the total number of labourers in the manufacturing industries.
3. Sales = the total sales of the 30 largest conglomerates / the total sales in the manufacturing industries.
4. Assets = the total assets of the 30 largest conglomerates / GDP

Source: Hwang, I.H. Economic Concentration, the Problem of Korean Recognition. KDI, 1997.

The second issue is that economic concentration is not the cause of the *chaebol* problem, but is the outcome of the *chaebol* system. So the policy of restraining economic concentration cannot be the fundamental solution to the *chaebol* problem. In fact, the reason for most concern about economic concentration is the ill effects flowing from the *chaebol* system. These ill effects originate from 'corporate hegemony', and centre on the potential power of the corporation to influence important social fields such as politics, economy, culture, etc. in order to keep their vested rights or expand their businesses with their economic resources (Hwang, 1997). For example, collusion with politicians, monopoly and oligopoly, propagation of an ideology to maintain vested rights (in culture and society), etc. are included in the activities for 'corporate hegemony'. In terms of corporate hegemony, the total amount of economic resource is just one of the variables that contributes to the power of corporate hegemony. In addition, corporate hegemony can be synthetically determined by their transparency, health of the corporate governance system, transparency and fairness of political decision making, accuracy and consistency of policy standard, reliability of legal institutions, healthy social act, degree of openness of the market, and so on. Therefore, if economic concentration is high, but other factors noted above are healthy, then the possibility of corporate hegemony could be low. Thus, the fundamental problem

of the *chaebols* is not caused by economic concentration, but by the institutional environment, including the corporate governance structure (Hwang, 1999).

The corporate governance issues

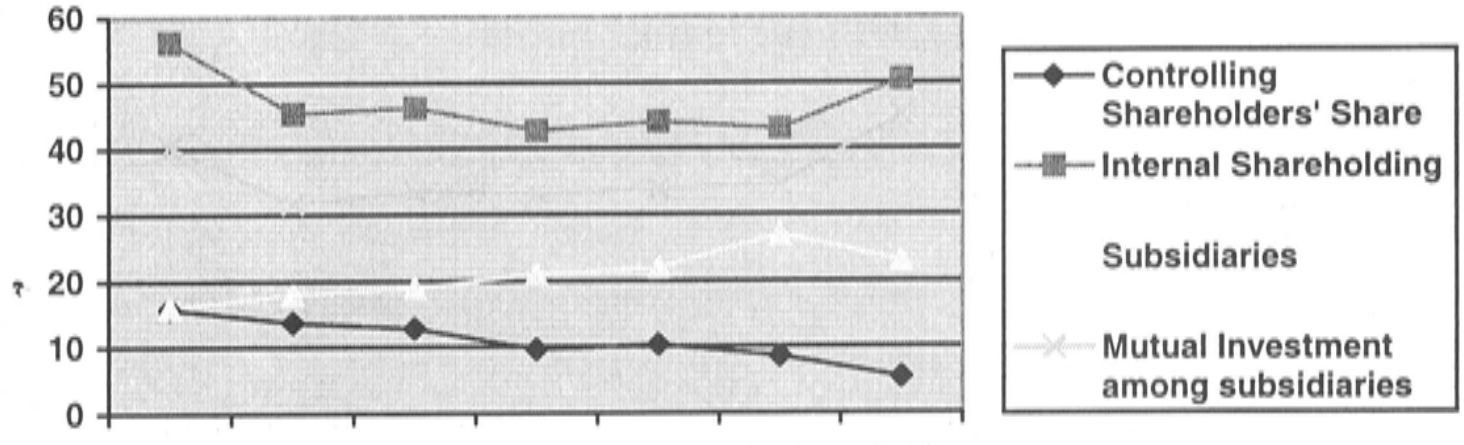
Most Korean corporations and *chaebols* have similar ownership and control structures. The lack of institutions to protect investors' property rights, is one of the most serious problems in terms of ownership and control structures in the Korean corporations. In other advanced nations, especially the U.S. and U.K., agency problems occur between managers and shareholders. Although, most Korean *chaebols* are controlled by the largest shareholders, they still cannot avoid the agency problem between controlling shareholders and outside minority investors. It is different from the agency problem between shareholders and managers outlined by Berle and Means (1932). For example, in the case of the 30 largest *chaebols* in 1999, the largest shareholders and their families own 5.4 percent and the subsidiaries hold, on average, 45.1 percent by cross-shareholdings. Therefore, the so-called 'in-group' shareholding proportion of 30 largest *chaebols* is as much as 50.5 percent on average (Korea Fair Trade Commission). They, the largest shareholders, their families, and the subsidiaries in their groups, subsequently control the conglomerates without any effective check and monitoring by outside investors or institutions. Most *chaebols* have actually expropriated their investors' property rights over the last several decades. For instance, arbitrary decision-making by a nominal board to invest in risky businesses is not uncommon. Until their mismanagement was disclosed by the financial crisis of 1997, *chaebols* had an undoubtedly successful expansion and diversification without check or monitoring under the government's tacit policy of favouring *chaebols*. The financial crisis, however, exposed their mismanagement practices and moral hazard, and induced the bankruptcies of such *chaebols* as the Kia Group, Daewoo Group, etc. In other words, a lack of governance discipline, which can solve and prevent agency problems, tempted *chaebols* to build a corporate empire and caused them finally to go bankrupt. (Hwang, 1999)

Owner-managerialism. Figure 3.1 indicates the trends of the controlling shareholders' share, the internal shareholding, and the number of subsidiaries on average of the 30 largest *chaebols* from 1987 to 1999. Even though the share of

controlling shareholders, including the share of their families, decreased from 17 percent in 1983 to 5.4 percent in 1999, they still exclusively hold the greatest authority to manage and control the conglomerate businesses. Because they internally share the subsidiaries as a means of cross-shareholding with a level of 40 –50 percent share through the high level of mutual investment among subsidiaries in a group, they possess complete governance power to control an average of over 20 subsidiaries in a business group.

Figure 3.1 The Internal shareholding and number of subsidiaries of the 30 largest *Chaebols*

(Unit: per cent, number)

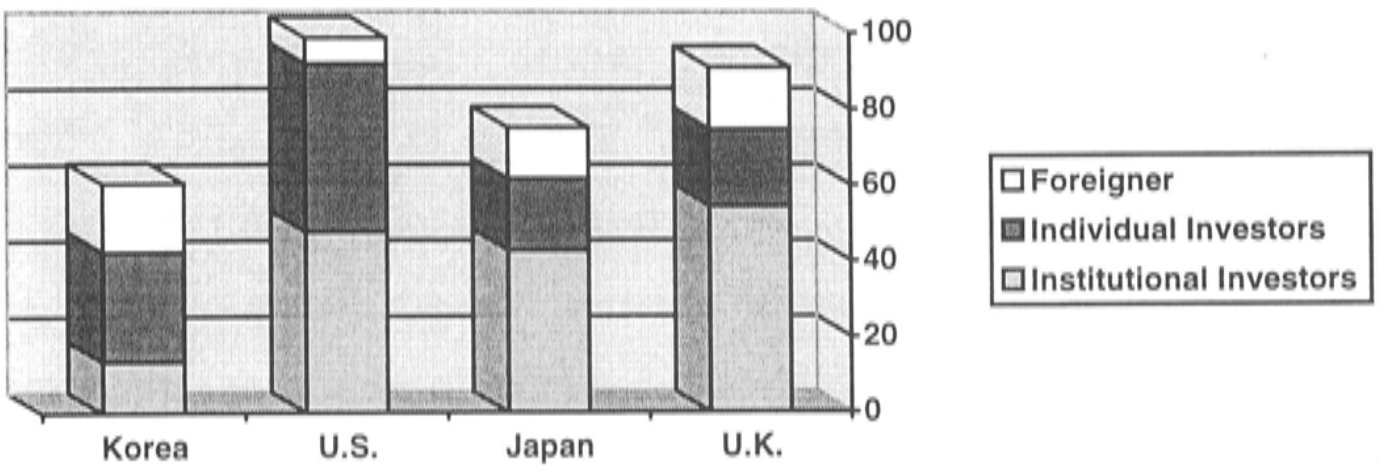


Note: 1. The unit of figures for controlling shareholder's share and internal shareholder's share is per cent
2. The unit of figures for subsidiaries is the number of subsidiaries
Source: Korea Fair Trade Commission

Figure 3.2 shows the international comparison of share holding distribution of the public listed companies in Korea, Japan, the U.S. and U.K. The institutional investors' share in Korea is 13.6 percent, which is much lower than that of the U.S., U.K, or Japan, because of the role of institutional investors, such as banks, and financial institutions. In Korea corporate governance had not yet been activated. Thus, most publicly listed firms in Korea do not have to pass the checking and monitoring scrutiny of institutions. Moreover, the individual shareholders who hold relatively low share holdings (28.9 per cent) also cannot afford to check and monitor the firms.

Figure 3.2 Comparison of shareholding distribution of the public listed companies in 1999

(Unit: per cent)



Source: Stock Exchange Market, 'Stocks', 1999

Table 3.7 Comparison of the debt/equity ratio

(Unit: per cent)

	Korea		U.S.	Japan	Taiwan
	Manufacturing Industries on average	30 largest *chaebols* on average			
1991	306.7	402.5	147.3	220.5	97.9
1992	318.7	426.3	168.2	216.5	93.0
1993	294.9	397.5	174.5	212.5	88.0
1994	302.5	402.5	166.5	209.6	87.2
1995	286.8	387.8	-	-	-
1996	-	386.7	-	-	-

Source: Korea Fair Trade Commission

According to Table 3.7, on an international comparison of the debt/equity ratio, Korea has the highest ratio compared with the U.S. Japan, and Taiwan. It is conjectured that firms prefer to get their funds through the indirect financial market rather than the direct financial market in order to avoid losing controlling power. Besides, the firms belonging to *chaebols* practise mutual investment with other subsidiaries with bank funds subject to debt payment guarantees. These figures indicate a distortion of the owner-managerialism problem in Korea as measured by the accurate debt/equity ratio (Hwang, 1998).[10]

[10] However, the level of the ratio does not represent better corporate performance and national economy, it simply indicates the efficiency of corporate management.

Pyramid control system. The pyramid control system refers to a consecutive ownership structure. It means that a leverage effect is obtained by controlling shareholders or their families, who hold the power to manage core businesses then, in turn, core companies become the controlling shareholders of other subsidiaries. In this pattern of shareholding, the controlling shareholders or their families can control most assets of many firms by holding a few equities. For example, if we suppose that the required share to manage a firm is α, a shareholder holds α of firm A, and firm A again owns α of firm B_1 and B_2. In turn, B_1 holds the share α of firm C_1, and so on. That is, a shareholder can control many company assets by holding comparatively few equities. Morck et al. (1998) present, in the following equation, the total assets (Θ) of the firms, which can be finally controlled by a shareholder who has the wealth (ω):

$$\Theta = \Delta\,\omega \quad (\Delta\text{: Pyramid multiplier, } \Delta = 1/\alpha^{n}) \tag{3-1}$$

The n represents the number of stages of pyramid control. If it is supposed that a shareholder has 1 billion dollars, he or she can control 27 billion dollars of assets through the leverage effect by using 3 stages of pyramid control. Furthermore, in the case of Korea, the mutual investment share of the 30 largest *chaebols* is, on average, 34.5 percent while the controlling shareholders' share is, on average, 8.5 percent. So, if it is supposed that the minimum share required to hold sufficient power to manage a firm is about 10 percent, the pyramid multiplier will be 10^3. That is, a controlling shareholder can control 1,000 times the size of his or her own assets.

As a matter of fact, this kind of situation occurs widely and appears throughout the world, except in most Anglo-Saxon countries. In Canada, however, the Bronfman family case is an example:

'The Edward and Peter Bronfman family own Bronfman Inc. Bronfman Inc. hold 19.6 percent shares of HIL Corp., HIL Corp. again hold 97 percent shares of Edper Resources, Edper Resources hold 60 percent shares of Brascan Holdings, who hold 5.1 percent of Brascan, who hold 49.9 percent of Braspower Holdings, who hold 49.3 percent of Great Lakes Power, who hold 100 percent of First Toronto Investment, who hold 25 percent of Trilon Holdings, who hold 64.5 percent of Trilon Financial, who own 41.4 percent of Gentra, who hold 31.9 percent of Imperial Windsor Group. Even though the Bronfman family own 0.03 percent of Imperial Windsor Group,

they completely control Imperial Windsor Group. And they govern every firm that is located in the control pyramid by way of mutual investment and floating stocks with special voting rights. In this way, the Bronfman family owns and controls hundreds of companies (Morck et al., 1998)'

Therefore, the *chaebol* type of ownership is not restricted only to Korea. There are arguments that pyramid control could induce management entrenchment, aggravate the agency problem, and diminish firm value; on the other hand, the pyramid control system might contribute to developing the national economies of developing countries (Khanna and Palepu, 1998; cited from Hwang, 1999).

Inefficient management disciplinary mechanism. According to the OECD definition (1999) corporate governance is the system by which business corporations are directed and controlled.[11] However, there were no effective management control systems to check and monitor business corporations in Korea. The management disciplinary mechanism generally consists of the market disciplines and internal disciplines, with the market discipline subdivided into four markets: capital market; financial market; product market; and labour (professional managers) market (Hwang, 1998, see Figure 3.3).

Capital markets can check managers through the exercising of shareholders' rights and mergers and acquisition (M&A); financial markets can monitor through credit assessment and post censorship; in product markets consumers play the role of assessing goods and products and force uncompetitive firms to exit from the market; and labour markets also can assess managers' competitiveness. These four disciplines are included under the heading market discipline. There are inside organisations, such as holding companies, and planning and coordinating offices (or 'chairman's office' - the name differs among *chaebols* in Korea), board committees, stock options, and relationship investing mechanisms that allow institutional investors to participate in management.

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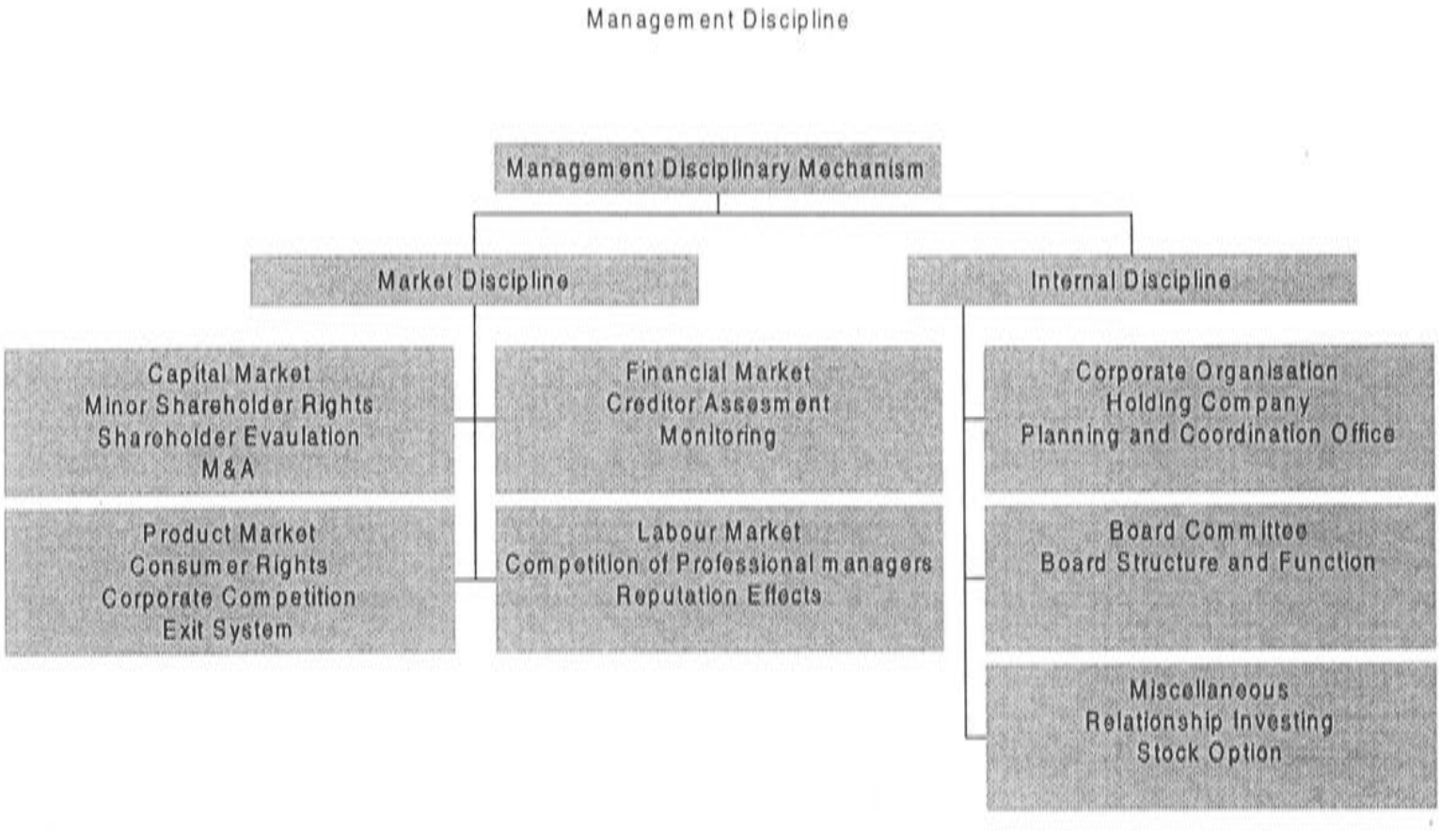
[11] "Corporate governance is the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as, the board, managers, shareholders and other stakeholders, and spell out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives are set, and the means of attaining those objectives and monitoring performance" (OECD, 1999). The OECD principles of corporate governance are in Appendix A for the reference.

Figure 3.3 Management Disciplinary Mechanism



Source: Hwang, 1998, Corporate Governance Issues and Policies.

In Korea, over the last several decades, these disciplines could not be exercised properly because there were no motives to do so at that stage of high economic growth. However, since the national economy entered its low growth period, and the world economy became tougher and more competitive, the demands for information about corporations and the need to check and monitor management in an era of uncertainty of corporate survival, increased. The above disciplines and their related institutions are necessary to prepare for and execute a complete reform of the Korean corporate governance system.

Khanna and Palepu (1997, 1999) also suggest the institutional contexts: the product, capital and labour markets, regulatory systems, and mechanisms for enforcing contracts for three nations (see Table A3.15). Unlike the U.S. and Japan, Korea has suffered from weak institutions. Firms in the U.S. and Japan may take for granted a range of institutions that support their business activities, but many of those institutions do not exist in Korea. It is the different institutional contexts that explain why different forms of economic organisations have developed and the success or failure of diversified business groups. Unlike advanced economies, in Korea, where there exist less developed financial and labour markets, companies must develop substitutes for those markets' roles.

Firms in the same *chaebol* provide reserved capital and /or labour resources to each other, when necessary. It is through the *chaebol*'s internal capital and labour markets that the voids of necessary institutions are filled.

A comparison with advanced corporate governance systems. A comparative study of advanced corporate governance systems seems to be helpful in determining how corporate governance should be organised in the Korean context. There are two basic corporate governance systems that predominate in the current developed economies. One is the Anglo-American "market based" model, with widely dispersed shareholders and a fairly vigorous corporate control market. The other is the "relationship based" system as in Japan and Germany, with large banks, corporate cross-holdings and conspicuous absence of takeovers.

Anglo-American corporate governance is based on the 'property right' view that a firm belongs to shareholders. It is organised in accordance with the "shareholder-value principle" that managers are expected to run firms to maximise the interests of shareholders who bear residual risks. That is why the Anglo-American corporate governance system is called shareholder capitalism or 'shareholderism'. Shareholders are considered as passive investors. The primary mechanism to discipline management is the active market for tender offers.

On the other hand, in the Japanese-German corporate governance system, which is the other predominant model in developed economies, the mechanism to discipline management through the capital market is not as developed in Japan as it is in the U.S. Instead, Japan relies on organisational networks called *keiretsu* to control management. One of the main characteristics of the big Japanese firms is that they form a group, or *keiretsu*, by interlocking ownership around a main bank. In the case of the U.S. the shares of individuals and institutional investors are much larger than those of financial institutions and non-financial institutions; in Japan the shares of financial institutions and non-financial institutions are comparatively large. In Japan, formal mechanisms such as a general assembly for shareholders and the board systems do not play a major role in controlling management. Instead, informal inter-firm monitoring plays a major role in disciplining management.

It is undoubtedly true that because these two unique corporate governance systems have merits and demerits of their own, it is not possible to judge which system is better. Their advantages can only be considered to apply to the particular economy, because every economy has its own business culture and system. Table A3.16 shows a comparison of corporate governance systems of the U.S. Japan and Korea.

Recent proposals to improve corporate governance. Since the crisis, under the agreement between the Korean government and the IMF, many internal and external reform efforts were proposed. First of all, in the internal corporate governance mechanisms, the primary internal control mechanism is the board system. In the past the board system in Korea has not played its role of checking owners' powers effectively. The recruiting of outside members would increase the independence and autonomy of the board enough to restrain inappropriate behaviour of owner-managers. This reform is based on the implicit assumption that the board system abroad plays the role of checking top management effectively. However, even in nations like the U.S., U.K. and Canada where board systems are well developed, board members are closer to management, who meet with board members regularly, than to faceless shareholders. The function of the board generally does not work effectively, except in the case of crisis, when the board performs the duty of changing managers (Prahalad, 1997).

In this regard, the board system reform effort might not be effective in the long run. In addition, the cultural background is different from the U.S. where individualism is predominant. Other factors such as blood relation, religion and school background play an important role in Korean society. It is expected that the new board system will lead to insider trading rather than checking and monitoring of management (Jeon and Gong, 1995).

The market pressure exerted by the invisible hand is recognised as better able to achieve transparency or soundness of management rather than direct government intervention in the internal control mechanism. In other words, the promotion of rivalry in product markets and the activation of the monitoring function of the

banking and security sector will exert pressure on firms to provide rational and transparent management (Jwa, 1999: 242-3).

The product and corporate control markets are the primary external corporate mechanisms. The competition for corporate control through the capital market exerts discipline on management. This corporate governance mechanism is thought to be the most effective method of checking the power of owner-managers in Korea. One of the major problems with the capital market is that it is often too late to take meaningful corrective action by the time outsiders intervene. Another problem is that top managements can find ways to use their legal and regulatory systems to set up roadblocks, which make attempts to replace managements very costly. The option of selling stocks and moving on to better-managed alternatives is less feasible for large institutional holders. Too much time and energy spent on maneuvers involved in mergers and acquisitions takes attention away from the real issue of long run corporate renewal (Prahalad, 1997: 47-8).

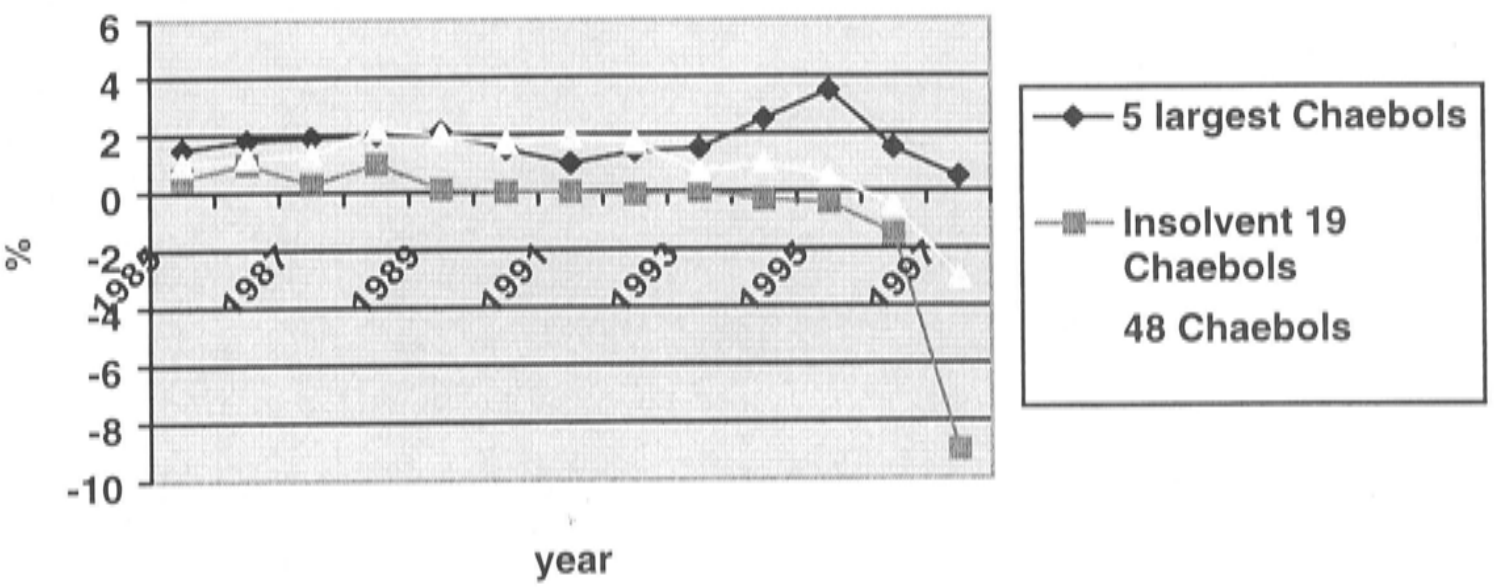
The strengthening of the rights of small shareholders seems to be effective in checking the owner-managers' opportunistic behaviour of serving their own profits at the expense of other shareholders. However, this mechanism should be limited to exclude intrusion in the policy-making realm of entrepreneurs, because this action undermines the entrepreneurial spirit, which in turn does not serve the interests of shareholders.

Overcapitalisation

Since the financial crisis of 1997, persistent overcapitalisation and debt management by the *chaebols* have been seized upon as the issue to explain the causes of the crisis. In fact, overcapitalisation and debt management were carried out by most corporations during the last three or four decades with the Korean government's connivance, and used as an important strategy to achieve high economic growth. Three fundamental questions are raised: (1) Did overcapitalisation and debt management really happen?; (2) If so, why did it happen?; and (3) What is the solution? For the first question, Figures 3.4 and 3.5 show the net income/total assets ratio of the 72 largest *chaebols* during 1985 –

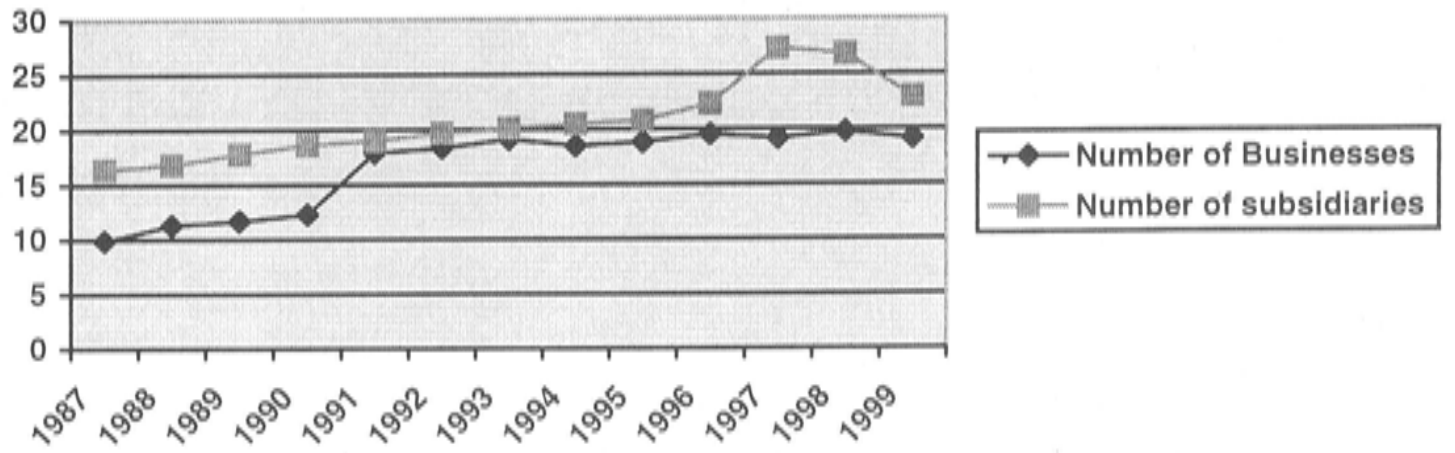
1997, and the change in the number of subsidiaries and business categories of the 30 largest *chaebols*.

Figure 3.4 Net income/total assets ratio of the 72 largest *chaebols* (1985-1997)



Source: Korea Fair Trade Commission

Figure 3.5 The number of businesses and subsidiaries of the 30 largest *Chaebols*



Source: Korea Fair Trade Commission

The net income/total assets ratios of most *chaebols* have decreased remarkably during the whole period from 1985 to 1997. In particular, the 19 insolvent *chaebols* - which are in the process of workout, composition, legal management or dishonour proceedings - have the worst ratio of deterioration from 0.48 percent to –0.39 percent. Except for the 5 largest *chaebols*, the ratio of the 48 *chaebols* the ratio has diminished from 1.39 percent in the 1980s to 0.33 percent in the 1990s. Meanwhile, the 30 largest *chaebols* have constantly expanded their business

categories and subsidiaries, respectively from 9.9 in 1987 to 19.07 in 1999, and from 16.4 in 1987 to 22.9 in 1999 on average. Most *chaebols* appear to have invested over the optimum level of opportunity costs of capital since 1989. (Hwang, 1998)

If a corporation is thought of as merely a nexus of contracts or a governance structure, managers might be motivated to over-invest intentionally (that is, they invest in the expectation that net income ratio is lower than the opportunity costs of capital). There are three reasons for overcapitalisation in Korea.

First, there was no check and monitoring function, which could modulate the conflicts between controlling shareholders or outside shareholders, to check managers in the capital market. So, controlling shareholders, who exclusively held the power to manage and control firms, might have under estimated the expected costs and over estimated the expected income and were thereby motivated to invest in low-profit businesses below the opportunity costs of capital.

Second, even though the debt/equity ratios (300-400 percent) of most *chaebols* were much higher than those of other developed nations (See Table 3.7), the creditors, that is, the banks and financial institutions, did not actively play a role in checking and monitoring *chaebols*, because the banks did not have the proper skills or systems to assess the credit and risk management skills of corporations under state-dominated control. With creditors not playing the checking and monitoring role effectively, managers most likely were motivated to invest in high-risk return businesses, thus inducing overcapitalisation and, in some cases, insolvency.

Third, there was no disciplinary mechanism to check and monitor management in the product market. Under the state's excessive entry and exit restriction policy, the product market could not play its proper role. This induced the moral hazard that led existing corporations to over-invest because of the state's concern about political and social disturbance. The government suppressed exits through preferential treatment and tax favours. In terms of entry restriction, the existing corporations most likely over established idle facilities when prospective new

rivals presented in the market. There are two examples of this behaviour - the reaction of existing companies to the trial entry of Samsung into the motor vehicle manufacturing industry, and the case of Hyundai's trial entry into the steel and iron industry.

Overall, the reasons for overcapitalisation were the lack of disciplinary mechanisms to check and monitor managers' decision-making in the capital market, the states of the financial market and the product market, and the laxness of board committees.

Therefore, rather than direct intervention by the state, the first solution should be the reforming of corporate governance related institutions and activation of various market functions such as the internal early warning system, and M&A from the financial market. It is also necessary to restore the role of investment coordination by the government through industrial policy measures. Moreover, given the growing importance of *chaebol*-controlled financial institutions, tougher financial regulations will also be necessary in order to prevent the accumulation of vast funds, which may aggravate overcapitalisation by channelling a disproportionate share of the *chaebol*'s funds into their subsidiaries.

Ownership structure: The issues

Ownership structure used to be considered as the most important factor in shaping the corporate governance system of any country. Particularly, it used to determine the extent of the agency problem of the conflict between managers and shareholders, or between controlling shareholders and minority shareholders. A Korean *chaebol* is, in general, governed by an owner and his/her family. It is common that owner-and-family are the accountable top bosses. This is similar to the pre-war Japanese *zaibatsu*. The ownership of Korean *chaebols* is quite different from both the Anglo-Saxon type, owned by many small shareholders, and the German or Japanese type, owned by the bank or by cross-shareholders (YO Kim, 1993).

The shareholding by owners and their families of the 5 largest *chaebols* was 4.6 percent as of 1 April 1999, and that of subsidiaries owned by owners and their families, directly or indirectly, was 49.8 percent, so that the total share of the dominant stockholders became 54.4 percent. This makes the owner's decision-making power absolute. The dominant stockholder's average share of the 30 largest *chaebols* was 50.5 percent, which was a little lower than that of the 5 largest *chaebols* (See Table 3.8).

Commercial banks rarely hold shares in *chaebol* firms. Mutual investment was once prevalent, but when the Fair Trade Law was reformed it prohibited direct mutual investment in a *chaebol* by the subsidiaries. The custom of mutual investment was formally similar to the Japanese *zaibatsu*, but they are really quite different from each other. While Japanese *keiretsu*[12] firms invest mutually and independently among themselves, Korean subsidiary firms invest in each other under the control of the owner. That is, Korean mutual investment between subsidiaries may be characterised as the proxy investment of the owner.

Table 3.8 The In-Group shareholding ratio of the 5 largest *chaebols* as of April 1999

(Unit: percent)

Chaebol	The owner and his family(A)	Subsidiaries(B)	In-Group Total(A+B)
Hyundai	5.4	51.0	56.4
Daewoo	5.6	48.5	54.1
Samsung	2.0	40.5	42.5
LG	3.7	48.7	52.4
Sunkyung	6.3	60.5	66.8
5 largest chaebols on average	4.6	49.8	54.4
30 largest chaebols on average*	5.4	45.1	50.5

Note: * See Table 3.4
Source: Korea Fair Trade Commission

In the management of Korean *chaebols*, typically the ultimate authority is always the owner and his family, no matter who manages. For instance, Samsung Group, one of the top 5 *chaebols* in Korea, also has an owner-manager system, in which

[12] A Japanese corporate organisation, which refers to a group of companies that have close trading and financial relationships and cross shareholdings.

the owner's family holds the final responsibility. That is, all the employed managers are accountable to the owner. Samsung Group owner, Lee, and his family participate directly in management. Routine affairs are entrusted to professional managers who have full powers except for personnel and financial management, where they are limited. In any case the final authority is President Lee. As the dominant stockholder, Lee's family usually appoints and dismisses executives, which is typical indirect participation. Lee's family members also directly participate in routine management affairs as the presidents of groups, sectors, or core enterprises. In other words, Lee's family governs the Samsung group completely through its domination of the general meeting of stockholders and the executive committee (YO Kim, 1993).

' A specific characteristic of the Korean *chaebol*'s corporate governance lies not in management control through appointing and dismissing executives, but in direct participation in management, being the president or the executive. Lee Byung Chul, the founding owner of Samsung Group, exercised his final decision-making authority as the president of Samsung Group in addition to his indirect management control, for example, the changing of executives. Most of the important new investments, such as the fertiliser industry in the 1960s, shipbuilding and precision industry in the 1970s, and the semi-conductor industry in the 1980s, followed the decision of President Lee. It is said that the professional managers are entrusted with matters other than strategic decision-making, such as the reshuffle of executives, financial management, and crucial new investment. This is true to some extent, but Lee has supervised and appraised the management results through the president's year-end council meeting, the results of which are reflected in the next year's reshuffle of the subsidiary presidents. By using the secretarial office, furthermore, Lee gets information on the ordinary management affairs of the subsidiaries and controls them as the real decision-maker. Lee and his family are said to govern Samsung totally, in terms of both ownership and management (YO Kim, 1993).'

The corporate governance system of Samsung is different from that of Anglo-Saxon firms, which are accountable to many small stockholders at their general meeting, or that of Japanese or German firms, which are accountable to the banks or the cross-shareholders.[13] There are two key aspects of corporate ownership structure: concentration and composition. The Korean type of ownership structure can be identified and estimated using these two aspects.

Ownership concentration

The grade of ownership concentration in a company determines the distribution of power between its managers and shareholders, or controlling shareholders and outside shareholders. When ownership is dispersed, shareholder control tends to

be weak because of poor shareholder monitoring. In the U.S. and the U.K., where corporate ownership is relatively dispersed, the major mechanisms for shielding shareholders from expropriation by incumbent managers are legal protection and the market for corporate control.

When ownership is concentrated, large shareholders may play an important role in monitoring management. In fact, in Continental Europe and East Asian countries as well as in Latin America where corporate ownership is concentrated, corporate management is usually in the hands of controlling shareholders.[14] Table 3.9 indicates the ownership concentration in the selected East Asian countries, for publicly listed companies (PLCs) in most countries. The average share of the largest shareholders ranges from 20.4 percent in Korea to 48.2 percent in Indonesia, and the ratio of the top 5 shareholders ranges from 38.5 percent in Korea to 67.5 percent in Indonesia.

Table 3.9 Ownership Concentration in the selected East Asian countries

(Unit: percent)

Country	Largest shareholder	Top 5 Shareholders	As of end of the year	Company coverage
Korea	20.4	38.5	1998	81 non-financial PLCs[1]
Malaysia	30.3	58.8	1998	All PLCs
Philippines	33.5	60.2	1997	All non-financial PLCs
Thailand	28.5	56.6	1997	All PLCs
Indonesia	48.2	67.5	1997	All PLCs

Note: The concentration ratio is defined as the percentage of total outstanding shares of an average PLC owned by the largest or top 5 shareholders. The percentages are not weighted by market capitalisation.

1. Based on the ownership data from the ADB survey of 81 non-financial PLCs. Ownership data comparable to those of the other countries are not available.

Source: Country Studies under RETA 5802, Asian Development Bank. 1999.

A fundamental problem in corporate governance under concentrated ownership is how to protect minority shareholders from expropriation by controlling shareholders. Controlling shareholders may act in their own interests at the expense of minority shareholders and other investors. This could take the form of

[13] See *The Economist*, 14 Jan. 1994 and Figure A3.8.

[14] See La Porta et al. 1998.

paying themselves special dividends, and taking on excessively risky projects inasmuch as they share in the upside while the other investors, who might be creditors, tolerate the cost of failures.

Many Korean *chaebols* have highly concentrated structures of ownership and control. This concentration of ownership and control, in fact, is not simply a *chaebol*-specific characteristic, but is also found in most non-*chaebol* firms. In most Korean firms, the ownership concentration is high enough to give control over all subsidiaries to the owner-managers and their family members. The control power of the largest shareholder (owner) of a firm is reinforced by the widespread practice of cross-shareholdings among the subsidiaries in a business group. As shown earlier by the in-group ownership concentration in Table 3.4, for the 30 largest *chaebols*, in 1999, the average ratio is as high as 50.5 percent. The largest shareholder and family share is 5.4 percent, and the cross-shareholdings among the subsidiaries represent 45.1 percent of the total shares outstanding.

Critics frequently point out that the Korean ownership structure leads to a distinctive structure of corporate control such that the corporate control over all subsidiaries is excessively concentrated in the hands of owner-managers, and the role of professional managers in individual subsidiaries is quite limited. Furthermore, it is often advocated that Korea needs to establish separation of ownership and management with the professional managers responsible for management (YK Lee, 1992b). But establishing a professional management system, together with separation of ownership and control,[15] appears to require preconditions such as a new corporate governance mechanism that could minimise possible agency problems while enhancing managerial efficiency. A policy of ownership deconcentration is a controversial issue and long-term goal since it requires an efficient capital market.[16] Such policy intervention should clearly understand the time horizon over which the policy would take effect. Rather than pursuing the separation of ownership and control in firms, public policy that liberalises the financial market so that the risk-return trade-off is

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[15] Agency theory points to the fact that the separation of ownership and control does not necessarily enhance economic efficiency.
[16] See YK Lee, 1992b.

considered in corporate financing decisions is more desirable. The fear of bankruptcy will force Korean firms to rely more on equity financing to improve their debt-ridden capital structure.

Ownership composition

Ownership composition is the second key aspect of corporate ownership structure. Ownership composition refers to who the shareholders are and, more important, who among them belong to the controlling group. A shareholder can be an individual, a family or family group, a holding company, a bank, an institutional investor, or a non-financial corporation. If a family or family group were a significant shareholder, they would be more likely to be interested in control benefits as well as profits. On the other hand, an institutional investor as a significant shareholder is more likely to be interested only in profits.

Similar to many other East Asian nations, the ownership profiles in Korea suggest substantial family corporate holdings. Family ownership of *chaebols* is usually achieved through controlling shareholdings and cross-shareholdings among subsidiaries (individual companies). Table 3.10 indicates that the ownership composition in Korea, in 1997: around 60 per cent of the total outstanding shares of all non-financial PLCs were owned by individuals, including controlling shareholders and their family members. Financial institutions, including banks, securities companies, insurance companies, investment trusts, and other finance companies, owned 16.6 percent of the total outstanding shares. Non-financial corporations owned 16.7 percent, reflecting mostly equity investments in subsidiaries by member companies of the *chaebols*. The shares owned by the government were insignificant, at less than 2 percent. The two aspects in Korea, in terms of composition, are controlling shareholders and their family domination, and cross-shareholdings among subsidiaries in a group.

Compared with the U.S. and Japan, in Korea the shares of the institutional investors are lower, while the shares of the government are relatively higher. These reflect the relative weakness of the role of the institutional investor in Korea, and continuing excessive government intervention in industries in Korea compared with the two advanced economies. The higher shares of the non-

financial institutions in Korea and Japan show that the cross shareholdings or investments among subsidiaries in a business group (*chaebol* or *keiretsu*) are prevalent in these two nations (see Figure A3.9).

Table 3.10 Ownership composition in Korea[1]

(Unit: percent)

	1980	1985	1990	1993	1994	1997[2]
Banks	5.9	7.1	6.3	11.6	10.7	8.5
Securities companies	2.2	7.4	5.4	5.3	4.0	6.1
Investment trusts	n.a.[3]	n.a.	9.3	6.6	7.3	n.a.
Insurance companies	n.a.	n.a.	6.3	6.5	5.9	2.0
Other finance companies	n.a.	n.a.	0.9	0.6	0.9	n.a.
Institutional Investors in total	8.2	14.4	28.1	30.6	28.8	16.6
Non-financial companies	19.4	30.0	18.0	19.2	20.1	16.7
Individual shareholders	56.9	52.5	51.6	41.3	40.2	60.0
Foreign Investors	2.0	2.6	2.0	8.8	9.1	4.5
Government	14.5	0.4	0.1	0	1.8	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: 1. Refers to ownership composition of the total outstanding shares of an average non-financial PLC in Korea.
2. Figures in 1997 are not weighted by market capitalisation.
3. n.a. indicates that the particular group is not separately classified in ownership data.

Source: Korea Stock Exchange Market, 'Stocks' and Country Studies under RETA 5802, Asian Development Bank. 1999.

A challenge for the Korean corporate sector

The experience of the crisis exposed the intrinsic weakness of the complex corporate system and management mechanism of the Korean corporate sector and proposed the great demands on structural reform. In other words, the Korean corporate organisations needed to fundamentally change the way they run their businesses in order to survive in the future.

Institutional change

One of the most influential factors in changing the cost of business group management is the condition of competition in the market. Coase (1937) pointed

out that the degree of competition ultimately determines the final configuration of the firm.

"A firm will tend to expand until the costs of organising an extra transaction within the firm become equal to the costs of carrying out the same transaction by means of an exchange on the open market or the costs of organising in another firm." (Coase, 1937).

The Korean business groups, *chaebols*, are now being exposed to competition at a higher level than ever before and the extent of competition will be intensified further in both domestic and international markets. If they fail to make transactions organise more efficiently than other firms in domestic and international markets, they cannot stand by themselves and avoid being integrated into the market system. Thus, the transactional efficiency of firms can be a function of both market and its competition. Since the crisis, the increasing pressure from global competition has forced the *chaebols* to change the structure of group management in the direction of "de-conglomeration" of business, "de-leveraging" of the capital structure, and "dis-empowering" of the controlling families. However, it does not mean that all the *chaebols* have to become extremely specialised companies with a purely equity-financed capital structure. One thing *chaebols* should be aware of is that internal transactions are more costly than market-type transactions. Hence, market transactions will increase. To accommodate the market pressure, the *chaebols* might become a more loosely linked federation of affiliated subsidiaries. A *chaebol* will be spun-off to some of the subgroups, the so-called FBOs (Family Buyouts). Furthermore, at the firm level, traditional MBOs (Management Buyouts) will take place to achieve managerial independence, and subsidiaries will be affiliated strategically, not financially. In addition, at the division level, diverse types of EBOs (Employee Buyouts) will take place as a way of spinning-off non-profitable divisions. In addition to the de-diversification efforts, several functions organised inside the *chaebol* will be spun-off to become sub-contractors or replaced by independent outsourcing. Any function such as advertising, R&D, finance, human resources management, intermediate parts and material procurement, and facility and maintenance management can be considered as possible functions for outsourcing.

De-diversification and de-leveraging are linked to the dis-empowerment of current management. In fact, many manager-owners in *chaebols* have already lost their control rights after making debt-equity swaps with creditor banks. As an outcome of recent revisions in corporate, securities, and accounting regulations, internal transactions will be exposed to and tested by markets and regulatory agencies such as Fair Trade Commission. As a result, managerial and accounting transparency will be significantly enhanced as well as management transparency and information disclosure. Trade-oriented nations like Korea should reform their corporate governance and institutional frameworks to follow global standards and trends, but adjust them efficiently in order to minimise the cost.

Managerial change

The market environment is changing in such a way as to increase to a great extent the relative price of using internally coordinated systems, like business groups. One effective response to this condition is to adopt a market-based style of management. Khanna and Palepu (1999) suggested the abandonment of the traditional model whose headquarters were deeply involved in directing resource allocation inside business groups. Instead, they suggested a new model for headquarters that actually provide a soft infrastructure – organisations such as venture capital funds or leveraged buyout firms. As many *chaebol* critics argued, it is true that *chaebol* managers have predominantly been owners and many subsidiaries have had negative earnings. Hence it would be hard to find accurate examples as the dominant ones in capital re-allocation inside the *chaebol*. Khanna and Palepu (1999) also pointed out that the financing of businesses is indeed best left to commercial banks and capital markets rather than so-called 'internal capital market'. In order to eliminate cross-shareholdings and internal transactions among subsidiaries, business groups can adopt a holding company. But holding companies should not interfere in the day-to-day operations of subsidiaries. If they do, the groups could become corrupted as Williamson (1975) expected. Business groups need to give their firms greater freedom in running their operations. Operating decisions are also delegated to the subsidiaries level. They are evaluated on a profit-centred base.

The groups also need to adopt a different capital structure. They should be based more on equity financing. Before the crisis, *chaebols* were both heavily indebted and involved in very risky ventures. This severe mismatch between a company's asset structure and its financial structure has made Korean enterprises vulnerable to high rates of default risk. The headquarters of business groups should play a more active role in bringing world-class standards and practices of disclosure and governance to their affiliated firms. These recapitalisation and the rational readjustments are necessary to generate other reforms such as business readjustment. As Khanna and Palepu (1999) predicted, the active response to these reform needs can offer a chance to access virtually unlimited capital.

Structural change

In Korea, it would be quite misleading to forecast that if the *chaebols* were totally dismantled by force, small and medium enterprises (SMEs) would have more growth opportunities. If breaking up the *chaebols* is not approached strategically in careful steps, it could destroy value in the *chaebols* and also in the whole Korean economy. However, this does not mean that they do not need to drastically restructure. As market pressure intensifies and institutional arrangements are set up properly, they will have no choice but to reorganise. They will need to strategically spin-off some parts.[17] Broad divestment of non-core assets and functions will enable large enterprises to restructure and re-invest in growth areas. Spinning-off peripheral parts can be a good way to develop emerging small-scale independent enterprises.[18] As *chaebols* are spinning off existing functions and outsourcing work, SMEs will have more opportunities to widen their market share. The spun-off companies will gradually move from being subsidiaries to becoming independent subcontractors. Then, SMEs will have a better chance than before in competing for subcontracting work from large groups.

In the new era, every growing business will be transformed into a knowledge-based one. Traditionally, the *chaebols* have had a competitive advantage in mega-sized manufacturing industries such as electronics, steel, shipbuilding, chemical,

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[17] See Figure A3.10.
[18] See Figure A3.11.

motor vehicle and semiconductors industries that require huge lump-sum investments. However, the new technological industries such as information technology (IT), bio technology, telecommunication and computer science industries make those manufacturing industries transform to knowledge-based industries. This trend is rapidly emerging in every market, so that large *chaebols* will have no choice but to join to this trend in order to avoid losing out. To catch up to leading firms in those new industries, *chaebols* will need to completely readjust their lines of business into a new business portfolio. Many existing structures for the old manufacturing businesses would be abandoned or reformed in order to focus on new businesses. Many business lines or products shed by the large firms can be taken over by SMEs. In these new industries, SMEs and other venture businesses can be as competitive as the large business groups can be. They are small but more flexible and speedier in response to rapidly changing market trends of these new industries. These changes imply greater opportunities for promising SMEs and ventures in the new era.[19]

Another economic actor to influence the *chaebols*' structure is foreign-owned companies operating in the domestic market. Many foreign companies, mostly multi national enterprises (MNEs), are now making strategic alliances with Korean big businesses in fields such as marketing and R&D. Since the crisis, foreign direct or indirect investment in Korea has notably and consistently increased.[20] This means that foreign companies are now becoming major players in both the capital and products markets in Korea. They are not only making alliances with the *chaebols*, but also competing fiercely with domestic companies. Moreover, most foreign companies are international market leaders, so that domestic firms should adjust and reform strategically their business and management structures to compete with world class competitors.

In the near future, the Korean corporate sector may be rearranged with new major business actors such as a group of loosely linked *chaebols* (much smaller than before), a group of foreign-owned companies, and a large group of SMEs including venture companies in the growing new industries.

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[19] See Figure A3.12.
[20] See Figure A3.13.

Summary and conclusion

The Korean big corporate groups, the so-called '*chaebols*', led the remarkable economic growth over the last four decades in Korea. *Chaebols* dominated the national economy under the state's 'stick and carrot' policy. *Chaebols* have unique characteristics compare with other nations' conglomerates. First, they are among the fastest growing business conglomerates in the world, and their economic concentration is substantial in the national economy. Second, they have close relationships with government, so-called "crony capitalism". Third, most of them are owned and controlled by founders and their families, with cross-shareholding by their subsidiaries in a group. Fourth, they widely diversified the scope of their businesses in related and unrelated areas except banking. Finally, they experience high financial leveraging.

The nature of the *chaebol* issues is focused on economic concentration and corporate governance with overcapitalisation. On the economic concentration issue, there are two notable points. First, the phenomenon of economic concentration does not only occur in Korea. Second, economic concentration is an outcome of the *chaebol* problems, not the cause of the *chaebol* problems. On the corporate governance issue, the first point to note is that most Korean corporations are controlled by their founders and their families in a pattern of owner-managerialism. Second, the controlling shareholders possess the power to control firms in a group by using a pyramid control system. But this does not happen only in Korea. Third, there is no effective management disciplinary mechanism to check and monitor managers in the Korean corporations. An effective management disciplinary mechanism should consist of an interaction among forces providing market discipline (including the capital market, financial market, product market, and labour market) and internal discipline in the form of corporate organisation, board committees and so on. Fourth, the advantages of the two major corporate governance systems are considered to apply to the Korean system, but there is a need to adjust them to fit the particular business circumstance in Korea. Finally, the lack of a corporate governance mechanism has induced overcapitalisation.

Ownership structure used to be considered as the most important factor in shaping the corporate governance system of any country. The two aspects of ownership structure are ownership concentration and composition. The degree of ownership concentration in a company determines the distribution of power between its managers and shareholders, or controlling shareholders and outside shareholders. Many Korean corporations, including *chaebols*, have highly concentrated structures of ownership and control, likewise other East Asian nations. In terms of composition, family ownership in a *chaebol* is usually achieved through controlling shareholdings and cross-shareholdings among subsidiaries.

Overall, the Korean economy and corporate sector are now facing very important moments to reform their institutional, managerial, and structural frameworks to compete with more numerous and stronger world competitors. They must do so without any protection in the new economic era.

4

Data and Model Specification

This chapter describes the data sample, definitions of variables, data sources, variables and model specification, descriptive statistics, and diagnostic tests that form the basis for analysis in the following chapters. The first section describes the data sample and defines the variables which are used in analysis. The second section discusses the model specification and describes the variables used. The third section reports the descriptive statistics and correlations among the variables. The final section examines the diagnostic tests applied in later chapters to inspect the models established in the earlier section.

Sample description and definition

The sample used here consists of 675 randomly selected publicly listed companies (PLCs) including *chaebol* subsidiaries in Korea as of 1999. The 675 PLCs are randomly selected from 1,116 firms listed on the Korea Stock Exchange market (KSE) and the Korea Securities Dealers Association (KOSDAQ) market.[1] The sample firms represent a variety of industries and there is no industrial restriction on inclusion in the sample. Data on the ownership fractions of insider shares and the three largest share holdings could not be obtained for all companies selected, so the final sample consisted of 146 subsidiary firms of the 30 largest *chaebols* and 353 other PLCs. Most firm specific data relating to the sample came from the data obtained by the National Information and Credit Evaluation Inc. (NICE).[2] The identification of the 30 largest *chaebols* is based on data in the annual report of the Korea Fair Trade Committee (KFTC). Since the financial crisis of 1997 in Korea, the firm specific data for 1999 are the most reliable and latest that are available.[3] A financial crisis swept over the Korean economy in 1997 and affected the financial statements of most firms with unexpected effects on management. As

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[1] The 590 firms listed in the KSE and 526 firms listed by the KOSDAQ in Korea as of 1999.
[2] An approved organisation which is specialised in financial information of the listed firms in Korea. The data are extracted from the website (http://www.nice.co.kr)
[3] Some firms that collapsed due to the financial crisis between 1997 and 1998 are excluded.

a result, the data of the financial years 1997 and 1998 might be distorted, and so these years were not included for analysis in this thesis. The use of a data from a single year raises the question of the stability of the results. However, the findings of McConnell and Servaes (1990, 1995) suggest that the relation between ownership structure and corporate value is consistent across years.[4]

Variables and model specification

The econometric models used in this study consist of 12 equations. The variables included in the models and defined in Table 4.1 are drawn from the studies of Morck et al. (1988a), Cho (1998), Demsetz and Lehn (1985), and Demsetz and Villalonga (2001).

Table 4.1 Variables, definitions, and sources

Variable	Definition	Source
MBA	Market value of assets to book value of assets. The numerator is the annual market value of equity and debt. The denominator is the book value of total assets	NICE, Author's calculation
INS	Fraction of shares owned by insiders, such as founder, founders' family and relatives, and subsidiary firms in groups	NICE
L3S	Fraction of shares owned by three largest shareholders in firms	NICE, Author's calculation
LS	Fraction of shares owned by largest shareholder in firms	NICE
PDS	Fraction of shares owned by president in firms	NICE
FS	Fraction of shares owned by foreigners in firms	NICE
FIS	Fraction of shares owned by financial institutions	NICE
AA	Average book value of total assets in billions of won. The average is of annual values as of 1999 and 1998	NICE
DA	Debt to book value of total assets as of 1999.	NICE
NINVTA	Net investment, which is including capital expenditures and research and development (R&D) expenditures, to total assets.	NICE, Author's calculation
LIQ	Liquidity. Cash flow to average assets	NICE
MFG	Manufacturing industry indicator that is 1 if a firm is a manufacturing firm, 0 otherwise.	NICE
IT	Information technology industry indicator that is 1 if a firm is a IT firm, 0 otherwise	NICE
FIN	Finance industry indicator that is 1 if a firm is a financial firm, 0 otherwise.	NICE

Table 4.1 provides definitions of the variables and the source of the data for these variables. MBA is defined as the ratio of the market value of assets to the book

[4] They explored empirically the cross-sectional relation between firm performance and insider ownership with the samples of U.S. firms for the years 1976, 1986, and 1988. The results were consistently similar.

value of assets and is used as a proxy for performance. INS is the fraction of shares owned by insiders, such as founder, founders' family and relatives, and subsidiary firms. L3S is identified as the fraction of shares owned by the largest three shareholders and is used as a proxy for ownership concentration level. The four ownership composition variables LS, PDS, FS, and FIS are respectively the fractions of shares owned by largest shareholder, by the president, by foreigners, and by financial institutions. These variables are used to examine the relationship of ownership composition with performance. AA is the average book value of total assets which is used as a proxy for firm size. DA, NINVTA and LIQ are respectively defined as debt to total assets, net investment including capital expenditures and research and development (R&D) expenditures to total assets, and cash flow to average assets. The industrial classifications form three categories: manufacturing, information technology and finance. Industry dummy variables are used to capture these broad industry effects.[5]

In Equation (4-1), corporate value (MBA) appears as the dependent variable and insider ownership variables (INS1, INS2, and INS3), control variables and industrial dummy variables appear as explanatory variables. The insider ownership variables are used to identify the relationship between the level of the insiders' share fraction and corporate value in Equations (4-1). Equation (4-2) is designed to test whether insider ownership is determined by performance as argued by Demsetz (1983). In Equation (4-2), the fraction of shares owned by insiders of firm (INS) appears as the dependent variable, while corporate value (MBA) appears as an explanatory variable, because there would be the possibility of this reverse causality. This possibility might reduce the usefulness of results obtained from Equation (4-1) of the effect of insider shareholdings on corporate value. Other things being equal, insiders may grant stock compensation when their firm performs well and the value of the firm increases. As a result, higher levels of insider ownership are expected for firms with high corporate values. The use of compensation policies involving stock and options on stock, insider trading possibilities and corporate takeover arguments all suggest that corporate

[5] Other industries are not categorised and are not included in any of the three categories.

performance might affect ownership structure and that, in turn, performance might be affected by ownership structure.[6]

Based on previous studies, the two break points on insider ownership are proposed in this model. However, the levels are different from those in the U.S. studies, because the two different break points that suggested by Morck et al (1988a) and Cho (1998) are not applicable to the Korean data set.[7] That is why the alternative break points are explored and used in Equation (4-1).[8]

$$MBA = f(INS1, INS2, INS3, NINVTA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}1)$$

$$INS = f(MBA, AA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}2)$$

The model specification is somewhat arguable. The determinants of ownership structure, for instance, could be extended to include stock market volatility, as hypothesised by Kyle (1985), even though Demsetz and Lehn (1985) and others did not include it in their models. However, that would lead into the quagmire of the stock price theory and make the model large and complicate unnecessarily. That is clearly beyond the scope of the study. The analysis proposed here in this thesis is a piece of a potentially bigger puzzle.

In the ownership concentration model, in Equation (4-3), corporate value (MBA) is the dependent variable, and ownership concentration ratio (L3S) is one of the independent variables. In Equation (4.4), the ownership concentration ratio is the dependent variable, and corporate value (MBA) is included in the independent variables. Equation (4-4) is apparently similar to Equation (4-2), but INS and L3S are positioned in separated equations because of their high correlation.[9] The three largest shareholders' share fraction (L3S) represents the degree of ownership

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[6] See Cho (1998), Loderer and Martin (1997), Kole (1996), and Demsetz (1986).

[7] Morck et al.(1988) propose 5 and 25 per cent of insider management ownership break points, while Cho (1998) suggests 7 and 38 per cent of insider ownership break points. In chapter 5, the alternative break points of 15 and 35 per cent are found and tested.

[8] INS1 = insider ownership if insider ownership < 15%,
= 15% if insider ownership ≥ 15%;
INS2 = 0 if insider ownership < 15%,
= insider ownership – 15% if 15% ≤ insider ownership < 35%,
= 20% if insider ownership ≥ 35%;
INS3 = 0 if insider ownership < 35%,
= insider ownership – 35% if insider ownership ≥ 35%.

[9] See page 9.

concentration: few studies have included this variable to test the relationship between ownership concentration and corporate value.[10]

$$MBA = f(L3S, NINVTA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}3)$$

$$L3S = f(MBA, AA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}4)$$

Equations (4-5), (4-6), (4-7) and (4-8) are designed to test respectively the relationship between performance (MBA) and the largest shareholders' share fraction (LS), presidents' direct share fraction (PDS), foreigners' share fraction (FS) and financial institutions' share fraction (FIS). Equations (4-9), (4-10), (4-11) and (4-12) capture the reverse effects of corporate value on ownership composition variables.

$$MBA = f(LS, NINVTA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}5)$$

$$MBA = f(PDS, NINVTA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}6)$$

$$MBA = f(FS, NINVTA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}7)$$

$$MBA = f(FIS, NINVTA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}8)$$

$$LS = f(MBA, AA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}9)$$

$$PDS = f(MBA, AA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}10)$$

$$FS = f(MBA, AA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}11)$$

$$FIS = f(MBA, AA, DA, LIQ, MFG, IT, FIN) \quad (4\text{-}12)$$

The market to book ratio (MBA) is used in all of these models as a measure of market value of firm. Pontiff and Schall (1998) found in their empirical study that the book-to-market ratio forecasts future market returns and the excess returns of small stocks over big stocks. Vuolteenaho (1999) also suggests that more than 60% of the book-to-market variance can be attributed to variation in expected excess returns. Chui and Wei (1998) found that the book-to-market ratio could explain the cross-sectional variation of expected stock returns in Hong Kong, Korea, and Malaysia. Lewellen (1999) reported that the book-to-market ratio predicts economically and statistically significant time-variation in expected stock returns. A number of other studies have found that book-to-market (or market-to-

[10] Demsetz and Villalonga (2001), and Xu and Wang (1997) used the five and ten largest shareholders' fraction respectively in their studies as proxies for ownership concentration. The three largest shareholders'

book) captures the variation in average stock returns and firm profitability.[11] In fact, Xu and Wang (1997) and Shin and Park (1999) used the market to book ratio as a proxy for performance in their empirical studies. MBA appears as an independent variable in Equations (4-2), (4-4), (4-9), (4-10), (4-11) and (4-12) to capture the possibility that corporate value affects the ownership structure variables.

Variable NINVTA, which is defined as net investment including capital expenditures and research and development (R&D) expenditures to total assets, is used in Equations (4-1), (4-3), (4-5), (4-6), (4-7), and (4-8) to measure the extent to which firms invest in capital, and then to examine whether investment influences firm value (MBA). The results of the previous U.S. studies show that investment affects positively firm value, but not vice versa.[12]

Variable DA, which is the ratio of the debt to average assets, in Equations (4-1), (4-3), (4-5), (4-6), (4-7), and (4-8) serves to capture the value enhancing or reducing effects of debt. Debt is generally negatively related to firm value, as shown in previous studies.[13] In Equations (4-2), (4-4), (4-9), (4-10), (4-11) and (4-12), DA serves to reflect the possibility that creditors would provide some monitoring of management. Hence, a larger value of DA might be associated with lower levels of various indicators of ownership structure.

LIQ is used as a control variable in every equation and is defined as cash flow divided by the average assets.[14] High liquidity may signal that the firm has done well and is likely to continue to do so and, thus, it may reflect both higher corporate performance.

AA, which as average assets, is used in Equations (4-2), (4-4), (4-9), (4-10), (4-11) and (4-12) to measure firm size. Larger firms require more investment from a

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share fraction is chosen in this study due to data feasibility.

[11] See Chen and Zhang (1998), Clare, Priestley and Thomas (1998), Daniel and Titman (1996), and Elfakhani, Lockwood, and Zaher (1998).

[12] See Morck et al (1988a), Cho (1998), Demsetz and Villalonga (2000).

[13] See Morck et al (1988a), Cho (1998), Demsetz and Villalonga (2000).

[14] See Cho (1998).

controlling equity holder, hence, AA is expected to have a negative coefficient in ownership structure equations.

Finally, industry dummy variables MFG, IT, and FIN are also used in every equations to represent industry effects. Their specification is based on the Korean Standard Industrial Classification (KSIC), and these variables are referred to in the Demsetz and Lehn study (1985). Membership of the information technology industry (IT) is expected to affect corporate performance positively because of the recent change in emphasis from traditional industry to the new and more profitable information technology industry. Conversely, manufacturing activity (MFG) may have a negative effect on firm value due to the move to information technology. Demsetz and Villalonga (2000) found that participation in the financial industry (FIN) was negatively related to firm value and insider ownership in their study and this is included here to capture this effect. In this study, 337 firms and 57 firms are respectively included in the manufacturing industry and the information technology industry, and 43 firms are categorised in the finance industry. The remaining, 62 firms in other industries, such as construction and service industries, are not categorised.

Descriptive statistics

The descriptive statistics for the publicly listed 499 firms drawn from the KSE and the KOSDAQ (hereafter PLCs and used in this analysis) are shown in Table 4.2. The sample consists of 146 subsidiaries of the 30 largest *chaebols* and 353 other PLCs. As shown in Table 4.2 and 4.3, the mean percentage of shares owned by insiders (INS) is more than 33 per cent. This is much higher than the level of around 10 per cent observed in the U.S. studies.[15] This indicates that insider ownership in Korea is relatively high compared with the U.S. and insiders in Korea seem to play a greater role in management decision-making. The mean value of insider ownership (INS) is 33.66 per cent, while the median value is 31.55 per cent, suggesting that the distribution is not highly skewed. However, there are 18 observations that have negligible values of the fraction of insider

[15] In the study by Morck et al., the mean value of insider ownership of 371 Fortune firms as of 1980 is 10.6%, 11.84% for 1093 Compustat firms as of 1986 (McConnell and Servaes 1990), 12.14% for 326 Fortune firms as of 1991 (Cho 1998), and 9.79% for 824 NYSE firms as of 1994 (Chen and Steiner 2000).

ownership. They are eliminated from the data set. The mean and median values of the largest three shareholders' share fraction (L3S) are respectively 38.63 per cent and 37 per cent. There is no evidence of skewness in the L3S distribution.

Table 4.2 also shows that the mean MBA is 2.29, while the median MBA is 1.08. The distribution shows that skewness is present along with some outliers. MBA values also range from 0.41 to 60.53 with high variability. Of the all observations most observations have values less than 20, but the five observations with MBA greater than 20 are the exception. The five largest MBA values are for *Handysoft* with MBA=26.86; *BE Technology* with MBA=38.32; *Eolith* with MBA=50.37; *E-net* with MBA=54.77; *Daum Communication* with MBA=60.53.[16] Barnett and Lewis (1978) define that an outlier is 'an observation which appears to be inconsistent with the remainder of that set of data'. Because outlying values are more likely to be errors in data than observations closer to the mean, they might be considered as being unrepresentative of the sample. McConnell and Servaes (1990) and Cho (1998) excluded outliers over a specific value in their empirical studies, while Morck et al. (1988) do not mention outliers.

The mean and median values of largest shareholders' share fraction (LS) and president direct share fraction (PDS) reflect that the distributions are not highly skewed. However, one prominent large value is detected in foreigners' share fraction (FS). This is *Hankuk Electric Glass*, in which foreigners hold 82.5 per cent.[17] The mean and median values of financial institutions' share fraction (FIS) show that the distribution is skewed.

Even though the mean and median values of debt to total assets ratio (DA) suggest that the distribution is generally symmetric, the two large values in DA are identified in the distribution plot. These are Daewoo Corporation with DA=2.35 billion won (Daewoo Corporation is a major subsidiary firm of Daewoo group which collapsed in 1999 and is under legal management) and Tongkook with

[16] All of these are information technology (IT) related firms such as Internet service providers and software program developers. This reflects the fact that the IT industry achieved the highest performance in Korea in 1999.

[17] This company is an affiliated firm of Asahi Group of Japan.

DA=1.74 due to its poor performance in the fabric business (it is undergoing restructuring).

Table 4.2 Descriptive statistics for the Korean PLCs

Variables	N	Mean	Median	Std. Dev.	Min	Max
MBA	499	2.29	1.08	5.13	0.41	60.53
INS(%)	481	33.66	31.55	17.90	0.20	100.00
L3S(%)	499	38.63	37.00	18.24	3.80	100.00
LS(%)	499	25.04	21.30	15.49	2.00	92.90
PDS(%)	180	23.38	21.55	14.91	0.20	79.50
FS(%)	296	8.86	3.40	13.02	0.10	82.50
FIS(%)	106	14.00	9.70	14.28	1.60	79.40
NINVTA	499	-0.07	-0.04	0.15	-0.73	0.57
DA	499	0.57	0.55	0.24	0.08	2.35
AA	499	1,025.71	151.43	3,083.20	1.95	40,856.00
LIQ	499	0.04	0.01	0.16	-0.41	2.86

Note: The sample consists of 146 subsidiary firms of the 30 largest *chaebols* and 353 other PLCs in 1999.

The mean and median values of net investment to total assets (NINVTA) and liquidity (LIQ) show that the distribution is not skewed. Outliers are not observed in the plot for investment, however, one large value of LIQ is found. This is *Daeyoung A & V* with LIQ=2.86 due to successful trading in 1999.

The mean and median values of average assets (AA) appear to be skewed throughout the observations. The four large observations in AA are also observed. They are *Daewoo Corporation* with AA=19,799 billion won, *Samsung Electronics* with AA=22,743 billion won, *Hana Bank* with AA=25,587 billion won, and *Cho Hung Bank* with AA=40,856 billion won.[18]

Table 4.3 reports the distribution of the sample statistics, grouped by level of insider ownership. In 25 firms, comprising 5 per cent of the sample, insiders own less than 5 per cent of the firm. In 444 firms, 89 per cent of the sample, insiders own more than 10 per cent of the firm, and in 363 firms, 73 per cent of the

[18] These two large banks do not belong to the 30 largest *chaebols* even their big firm size. By the Fair Trade Law, the 30 largest *chaebols* should not be owners of Seoul-based commercial banks in Korea.

sample, insiders own more than 20 per cent of the firm. These numbers are much higher than those of the U.S. firms in the studies by Demsetz and Lehn (1985), Morck et al. (1988a) and Cho (1998).[19] These results also generally indicate that there is an inverse relation between level of insider ownership and average assets (AA). The level of insider ownership is low for large firms, and generally higher for small firms, which is consistent with the case of the U.S. (Cho, 1998)

Table 4.3 Mean values of MBA and other variables for 499 Korean PLCs as of 1999, grouped by level of insider ownership share fractions.

Insider ownership level(%)	Number of firms	MBA	NINVTA	DA	AA (in billion won)	LIQ
Negligible[a]	18	2.653	-0.127	0.769	4452.9	0.009
0< INS<5	7	3.208	-0.117	0.748	2811.986	0.005
5≤INS<10	30	1.959	-0.056	0.638	709.205	0.012
10≤INS<15	27	1.260	-0.066	0.615	3300.852	0.011
15≤INS<20	54	1.653	-0.038	0.576	1045.44	0.011
20≤INS<25	60	2.329	-0.076	0.586	1435.117	0.009
25≤INS<30	54	3.601	-0.102	0.555	1011.897	0.047
30≤INS<35	41	4.113	-0.070	0.520	397.983	0.042
35≤INS<40	48	1.315	-0.039	0.580	650.558	0.051
40≤INS<45	49	1.953	-0.071	0.519	413.410	0.092
45≤INS<50	32	2.303	-0.102	0.532	298.098	0.092
50≤INS<55	19	2.423	-0.038	0.505	646.092	0.032
55≤INS<60	15	2.353	-0.150	0.385	377.063	0.012
60≤INS<65	11	2.535	-0.149	0.465	90.441	0.073
65≤INS<70	14	1.494	-0.107	0.570	431.603	0.056
70≤INS<75	10	1.524	-0.024	0.502	122.525	0.064
75≤INS	10	1.151	-0.042	0.649	165.67	0.138

[a] Negligible insider ownership ratio means that the shares are too small to report in the financial data (NICE) so that the data do not present the ratios.
Note: The sample consists of 499 PLCs, which are combined with 146 *chaebol* firms and 353 other PLCs in 1999. The figures are rounded off to three decimal points.

[19] In their studies, around 55 per cent of the sample own less than 5 per cent of the firm, around 30 per cent own more than 10 per cent, and 20 per cent own more than 20 per cent of the firm, suggesting the prevalence of significant ownership in the U.S.

Correlations

The correlations among insiders' share fraction (INS), the largest three shareholders' share fraction (L3S), the largest shareholders' share fraction (LS), and president direct share fraction (PDS) are relatively higher than among any other variables: 0.96 between INS and L3S; 0.87 between INS and LS; 0.90 between L3S and LS; 0.66 between LS and PDS; 0.55 between L3S and PDS; 0.51 between INS and PDS. It is expected that many of insiders are also one of the three largest shareholders, the largest shareholders, and presidents. That is why these ownership variables are separated in the regressions as shown in the models earlier. None of the remaining variables is as highly correlated.

Diagnostic tests

There was skewness of the variables in the presence of some outlying values, as just discussed. Moreover, from the initial regression results, functional form problems were also detected in some of the models. To obtain symmetric distributions and correct the weak functional form problems, all variables are graphed except for industry dummy variables, and this analysis suggested the use of a log transformation for the variables. The logged values of these variables (LNMBA, LNINS, LNL3S, LNLS, LNPDS, LNFS, LNFIS, LNAA, LNDA, and LNNINVTA) are used in main analysis.

While auto correlation of regression error terms is usually associated with time series analysis, Johnston (1984) suggests that spatial autocorrelation may affect cross sectional studies. In particular, if a large quantity of observations from firms in a particular industry is included, errors are likely to be related. In the presence of autocorrelation, R-sq's may still be high and coefficients may remain unbiased, but variance is not minimised, so the estimates are inefficient. However, Durbin Watson statistics indicate that the assumption of independence of the residuals appears valid in this case.

The production of reliable information from regressions requires the satisfaction of the assumption that the variance of the error terms is a constant, or the error terms are homoscedastic. Where this is not the case so that heteroscedasticity is

present, standard errors will be biased and the co-efficient estimates will be inefficient. These estimates will, however, remain unbiased. In the case of heteroscedasticity, t–statistics and F-statistics will be unreliable. White's (1980) test examines residuals to detect heteroscedasticity. In this study, only a small number of regressions were found to suffer from the problem of heteroscedasticity. Where mis-specification is detected, White's heteroscedasticity consistent t-statistics are calculated and reported.

Adjusted statistics

The adjusted descriptive statistics for the Korean 499 PLCs are reported in Table 4.4. The mean value of LNMBA is 0.32, while the median value is 0.07, 3.33 and 3.44 respectively for the mean and median values of LNINS, and 3.53 and 3.62 for LNL3S. These values of the log-transformed variables not only suggest that their distributions are not skewed, but the mean and median values of LNFS, LNFIS, LNAA also suggest that the skewness in their distributions is corrected.

Table 4.4 Adjusted statistics for the PLCs

Variables	N	Mean	Median	Std. Dev	Min	Max
LNMBA	499	0.32	0.07	0.75	-0.89	4.10
LNINS	481	3.33	3.44	0.68	-1.61	4.61
LNL3S	499	3.53	3.62	0.54	1.34	4.61
LNLS	499	3.03	3.06	0.65	0.69	4.53
LNPDS	180	2.87	3.07	0.90	-1.61	4.38
LNFS	296	1.00	1.22	1.77	-2.30	4.41
LNFIS	106	2.29	2.27	0.81	0.47	4.37
LNNINVTA	499	-0.09	-0.04	0.19	-1.29	0.45
LNDA	499	-0.66	-0.60	0.42	-2.55	0.55
LNAA	499	5.12	5.00	1.85	0.67	10.15
LNLIQ	499	0.03	0.01	0.10	-0.52	1.35

Note: The sample consists of 499 PLCs. The sample is a combination of 146 *chaebol* firms and 353 other PLCs in 1999. But the 481, 180, 296 and 106 samples are used respectively for LNINS, LNPDS, LNFS, and LNFIS. The figures are rounded off to two decimal points.

Adjusted correlations

Table 4.5 shows the adjusted correlation matrix of log-transformed variables. There is no notable difference from the first estimated correlation matrix, while

the correlation between LNINS and LNL3S is 0.94, although slightly lower than before, is still high. The correlations are 0.89, 0.91 respectively between LNINS and LNLS, and LNL3S and LNLS, suggesting that those three ownership variables are still highly correlated. The correlations between LNPDS and LNINS, LNLS, and LNL3S are not high and also lower than in the first estimation. Therefore, three ownership variables (LNINS, LNLS, and LNL3S) are still preferably appeared in separated equations, as discussed in an earlier section. None of the remaining variables is as highly correlated.

Table 4.5 Adjusted correlation matrix of variables for the Korean PLCs

	LNMBA	LNINS	LNL3S	LNLS	LNPDS	LNFS	LNDA	LNAA	LNLIQ	LNNINVTA
LNMBA	1.00									
LNINS	-0.01	1.00								
LNL3S	0.05	0.94	1.00							
LNLS	0.18	0.89	0.91	1.00						
LNPDS	0.15	0.33	0.34	0.38	1.00					
LNFS	0.01	0.12	0.22	0.15	-0.02	1.00				
LNDA	-0.35	-0.08	-0.17	-0.23	-0.18	-0.05	1.00			
LNAA	-0.75	-0.11	-0.17	-0.33	-0.13	0.09	0.50	1.00		
LNLIQ	0.41	0.19	0.16	0.22	-0.09	-0.14	-0.29	-0.54	1.00	
LNNINVTA	-0.60	-0.13	-0.17	-0.31	-0.07	0.03	0.46	0.56	-0.40	1.00

Note: The sample consists of 75 PLCs for which all the ratios of ownership variables are available. LNFIS is not included in this correlation matrix, because only 12 observations are involved for LNFIS and these are not enough to estimate in the correlation matrix. The figures are rounded off to two decimal points.

Summary

Included in this chapter was a discussion of the sample analysis, variables and model specification, descriptive statistics and diagnostic tests that are relevant in assumption of regression analysis in the following chapters.

The variables in the models, which are based on empirical models used in previous studies, are defined and selected as particular empirical proxies for dependent and independent variables in the specific equations. The models consist of 12 equations to estimate the relationship between corporate value and ownership structure, including insider ownership, ownership concentration and other ownership composition variables.

The diagnostic tests require that certain assumptions regarding the distribution of input data, functional form, and heteroscedasticity be satisfied. The methods employed to overcome these problems were discussed in detail. The data and models are now appropriate to apply for the regression analysis in the following chapters.

The following chapter presents the empirical results for hypotheses regarding the relationship between ownership structure and corporate value of the Korean PLCs. As well as considering the results of this study, the relevance of these findings is considered in the context of existing research.

5

Empirical analysis of the relationship between ownership structure and corporate value of the Korean PLCs

This chapter reports the results of the regressions and discusses the main findings of the analysis regarding the cross-sectional relationship between ownership structure and corporate value of Korean PLCs. The first section reports a piecewise ordinary least squares linear regression analysis, replicating the break points method in Morck, Shleifer, and Vishny (1988a) and another the break points method in Cho (1998), and a set of alternative break points are found and reported in the analysis. The second section discusses the results of the insider ownership regression. The third section states the results of regressions between ownership concentration and corporate value. The fourth section examines the relationships between ownership composition variables and corporate value. The fifth section investigates the robustness of the results. The final section summarises the results found in earlier sections and provides a conclusion.

Piecewise linear regression results

Morck et al. (1988a) and Cho (1998) found a non-linear relation between insider ownership and corporate value for the U.S. Fortune 500 firms. In this section their research results are first reported, then their methods are replicated to explore the relation between two variables on the model shown in Equation (5-3) for the Korean PLCs. Morck et al.'s piecewise linear regression results including break points are reported in Equation (5-1). As noted in the previous chapter, Morck et al. found that firm performance rises as insider ownership increases from 0 per cent to 5 per cent, falls as insider ownership rises further to 25 per cent, and then continues to rise, although much more slowly, as ownership rises beyond 25 per cent. Although not statistically significant above 25 per cent, the results in Equation (5.1) suggest a significant non-monotonous relation between the level of insider ownership and firm performance.

$$Q = \text{Control variables} + 5.11\ INS1 - 1.49\ INS2 + 0.773\ INS3 \qquad (5\text{-}1)$$
$$(2.39) \qquad (0.668) \qquad (0.422)$$

R-sq = 0.602, N= 325

INS1 = ownership < 5%,

INS2 = 5% ≤ ownership < 25%,

INS3 = ownership ≥ 25%

Q = Tobin's Q, a proxy for firm performance

In the meantime, Cho (1998) also found a significant non-linear relation between insider ownership and corporate value, consistent with Morck et al. (1988a). Cho found that the non-monotonous relationship between insider ownership and corporate value had break points of 7 per cent and 38 per cent according to the grid search technique.[1] The piecewise regression provides the results shown in Equation (5-2).

$$Q = 1.1101 + 7.766\ INS1 - 1.949\ INS2 + 0.959\ INS3 \qquad (5\text{-}2)$$
$$(9.68) \qquad (2.65) \qquad (-2.18) \qquad (0.94)$$

Adj. R-sq = 0.014, N= 326

INS1 = ownership < 7%,

INS2 = 7% ≤ ownership < 38%,

INS3 = ownership ≥ 38%

Q = Tobin's Q, a proxy for firm performance

As described in Equation (5-2), t-statistics are shown in parentheses below coefficients. The relation between insider ownership and Tobin's Q is significantly positive for ownership levels below 7 per cent, significantly negative for levels between 7 per cent and 38 per cent, and positive, but insignificant, for levels above 38 per cent.

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[1] To find two break points, starting with 0 %, firstly find the insider ownership level that produces the most significant slope coefficient on the first insider ownership variable. Then search for the second level that yields the most significant slope coefficients on the second and the third variables in the regression. Finally find the two levels that provide the most significant slope coefficients on the three insider ownership variables simultaneously.

Table 5.1 Piecewise linear ordinary least squares regressions.

	LNMBA	LNMBA	LNMBA	LNMBA
INS1	-0.1655	-0.0941	-11.2275	-5.7413
	(-1.3907)	(-1.6111)	(-1.7079)*	(-1.4884)
INS2	0.0081	0.0034	0.5034	0.3379
	(1.1019)	(0.6274)	(1.2515)	(1.2358)
INS3	-0.0009	-0.0011	-0.2068	-0.3220
	(-0.3177)	(-0.5052)	(-0.5346)	(-1.1667)
MFG		-0.1251		-0.1300
		(-1.8037)*		(-1.8754)*
IT		0.7379		0.7367
		(5.6313)***		(5.6294)***
FIN		0.0699		0.0702
		(0.9374)		(0.9422)
LNDA		-0.1779		-0.1746
		(-2.0009)**		(-1.9751)**
LNLIQ		1.0573		1.0434
		(3.0769)***		(3.0673)***
LNNINVTA		-1.4328		-1.4378
		(-5.7353)***		(-5.7754)***
Constant	1.0127	0.4492	0.9964	0.3740
	(1.7877)*	(1.6154)	(2.2826)**	(1.4162)
Adj. R-sq	0.0011	0.3846	0.0010	0.3860

Note: The regressions of firm value on insider ownership share fraction with the break points of Morck et al.(1988a) and Cho(1998), control variables, and industrial variables for the Korean PLCs. Variable definitions are in Table 4.1. The sample in this table includes the 481 PLCs that randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics are (in parentheses) are corrected for heteroscedasticity using White's correction. The second and the third columns are the results replicating Morck et al. The fourth and the fifth columns are the results replicating Cho.

INS1 = insider ownership if insider ownership < 5% in the second and third columns,
or < 7 % in the fourth and fifth columns
= 5% if insider ownership ≥ 5% in the second and third columns,
or 7 % if insider ownership ≥ 7% in the fourth and fifth columns;
INS2 = 0 if insider ownership < 5% in the second and third columns,
or < 7 % in the fourth and fifth columns
= insider ownership – 5% if 5% ≤ insider ownership < 25% in the second and third columns,
or insider ownership – 7% if 7%≤ insider ownership < 38% in the fourth and fifth columns;
= 20% if insider ownership ≥ 25% in the second and third columns,
or 31 % if insider ownership ≥ 38% in the fourth and fifth columns;
INS3 = 0 if insider ownership < 25% in the second and third columns,
or 0 if insider ownership < 38% in the fourth and fifth columns,
= insider ownership – 25% if insider ownership ≥ 25% in the second and third columns,
or insider ownership– 38% if insider ownership ≥ 38% in the fourth and fifth columns.

*** Significant at the 0.01 level
** Significant at the 0.05 level
* Significant at the 0.1 level

Following Morck et al. (1988) and Cho (1998), the piecewise linear regression of corporate value on insider ownership are replicated as shown in Equation (5-3) for the Korean PLCs, which is adjusted from Equation (4-1).[2]

[2] For the model specification and diagnostic tests, see chapter 4.

$$LNMBA = f(INS1, INS2, INS3, LNNINVTA, LNDA, LNLIQ, MFG, IT, FIN) \quad (5\text{-}3)$$

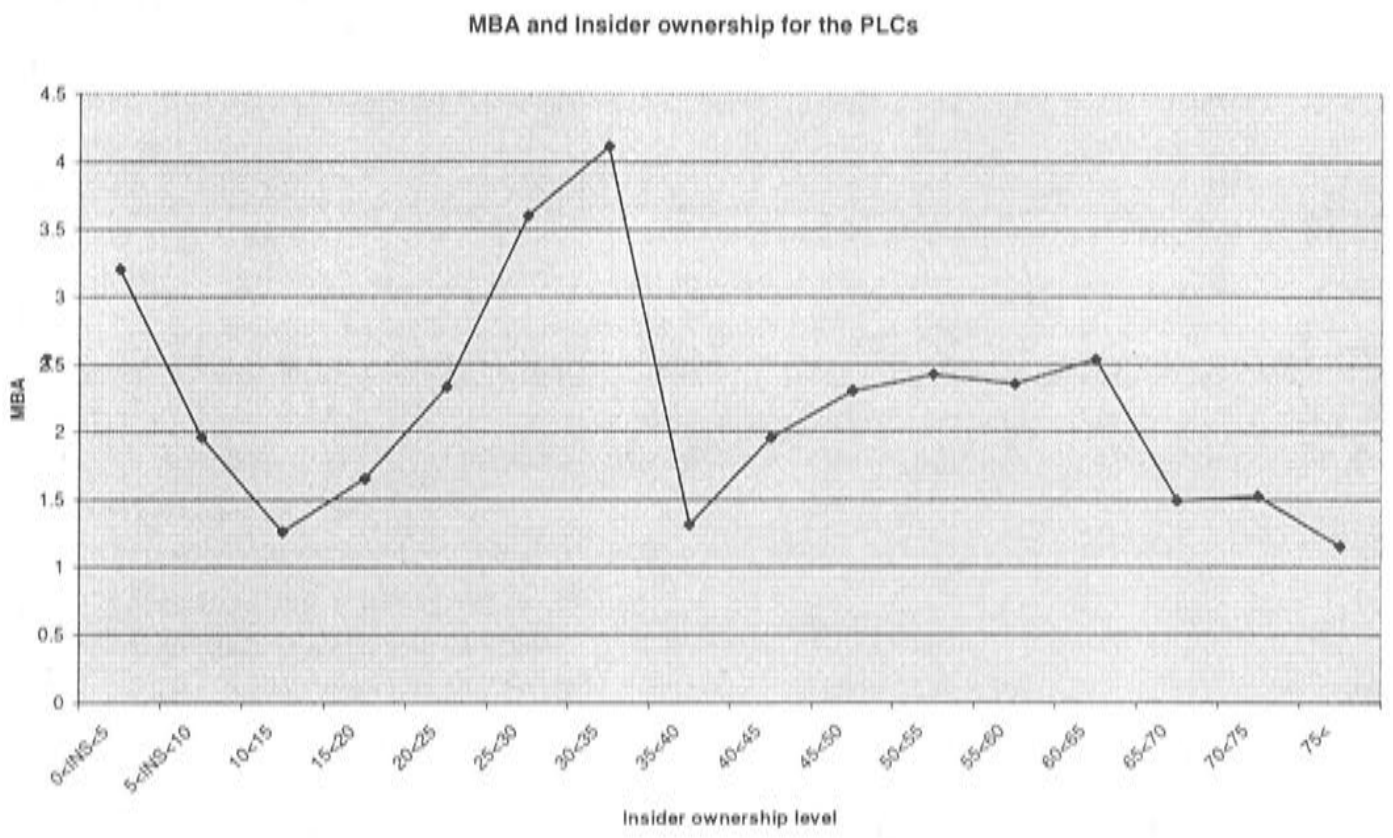
Table 5.1 presents the results of the piecewise regressions of corporate value on insider ownership and other control variables. The figures in the second and third columns are replicated Morck et al. (1988a) and the figures in the fourth and fifth columns are replicated Cho (1998). The results generally suggest that all of the three-ownership levels are not only insignificant, but also the signs of the coefficients differ from those reported in Morck et al. and Cho. Moreover, the results of piecewise linear OLS regressions with the control variables in the third column and the fifth column are also insignificant. These results suggest that the models of Morck et al. (1988a) and Cho (1998) do not apply to the Korean PLCs.

To find other break points for the Korean data set, the levels of insider ownership are grouped over a range of 5 percentage points into 16 categories, then graphed against the levels of corporate value as shown in Figure 5.1. The lowest and highest turning points at which the change in slope is significant are selected. Those points are 15 per cent for the lowest turning point as a first break point and 35 per cent for the highest turning point as a second break point. The 40 per cent can be one of the lowest points as a third break point, but the trends are not remarkable above 40 per cent, so that 40 per cent is not suitable for one of the notable break points. Therefore, 15 per cent and 35 per cent are selected as the two natural break points. Consequently, the results of the piecewise regression using these three break points are reported in Table 5.2 to examine whether the use of alternative break points rather than those proposed previously for the U.S. firms is effective for the Korean PLCs. The figures in the second column are from the regression including only three insider ownership variables. The third column includes results from the regression including the control variables and industry dummy variables as shown in Equation (5-3).

The regressions reported in Table 5.2 strongly suggest that there is a significant non-monotonous relation between the level of insider ownership and corporate value, which is consistent with Morck et al. (1988a) and Cho (1998). The level of corporate value declines as insider ownership increases up to 15 per cent. It rises

as insider ownership increases up to 35 per cent and then declines again after 35 per cent. The relation between insider ownership and corporate value is significant ownership level between 0 per cent and 35 per cent, but is insignificant for levels above 35 per cent. These results are impressive compared to the case of the U.S. In the studies of Morck et al.(1988a) and Cho (1998), levels of 5 per cent and 7 per cent of insider ownerships respectively would be optimal for firm value.[3] In the case of Korean PLCs, however, around 35 per cent of insider ownership would be considered to adjust for their higher corporate value.[4]

Figure 5.1 Insider ownership (INS) and corporate value (MBA) for the Korean PLCs.



The results in this analysis are also broadly consistent with Stulz (1988) and McConnell and Servaes (1990) who predicted that firm value would first increase, then decrease, as insider ownership increases. At insider ownership levels below 15 per cent and above 35 per cent, the results are consistent with the arguments of Jensen and Murphy (1990), Slovin and Sushka (1993), and Boyle, Carter and Stover (1998) who support entrenchment theory. The results here are also consistent with Berle and Means (1932), Jensen and Meckling (1976), and Lewellen, Loderer and Rosenfeld (1985) at insider ownership level between 15 per cent and 35 per cent.

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[3] In their studies, both the results are positive, but insignificant in the levels above 25 per cent and 38 per cent.

Table 5.2 Piecewise linear ordinary least squares regressions.

	LNMBA	LNMBA
INS1	-2.3599	-2.2633
	(-1.3608)	(-1.8312)*
INS2	1.0499	0.9491
	(1.7505)*	(2.1880)**
INS3	-0.3256	-0.4353
	(-0.8903)	(-1.5812)
MFG		-0.1383
		(-2.0025)**
IT		0.7373
		(5.7509)***
FIN		0.0716
		(0.9515)
LNDA		-0.1774
		(-2.0055)**
LNLIQ		1.0256
		(3.0321)***
LNNINVTA		-1.4399
		(-5.8144)***
Constant	0.5390	0.2651
	(2.4544)**	(1.6252)
Adj. R-sq	0.0007	0.3895

Note: The regressions of firm value on inside ownership share fraction with the alternative break points, control variables, and industrial variables for the Korean PLCs.Variable definitions are in Table 4.1. The sample in this table includes the 481 PLCs that randomly selected from the 1,116 firms[4] listed on the KSE and KOSDAQ in 1999. *t*-statistics are (in parentheses) are corrected for heteroscedasticity using White's correction. The second column shows the figures with the ownership variables only. The third column includes the ownership variables and control variables and industrial dummy variables.

INS1 = insider ownership if insider ownership < 15%,
= 15% if insider ownership ≥ 15%;
INS2 = 0 if insider ownership < 15%,
= insider ownership – 15% if 15% ≤ insider ownership < 35%,
= 20% if insider ownership ≥ 35%;
INS3 = 0 if insider ownership < 35%,
= insider ownership – 35% if insider ownership ≥ 35%.
*** Significant at the 0.01 level
** Significant at the 0.05 level
* Significant at the 0.1 level

For the international comparison, Chen and Ho (2000) suggested that, in Singapore, insiders (managers) who have more shares have more incentive to perform effective diversification than those who have fewer shares of their firms because the private benefits may outweigh the value loss from diversification. They also suggested the implications to the Singaporean corporate sector that Singaporean managers should be given higher stakes in their firms and Singaporean firms should issue more shares to their managers, because outside blockholders do not effectively mitigate the agency problems in firms with low

[4] The current average insider ownership in the Korean large business groups is around 50 per cent (KFTC).

insider ownership. Farrer and Ramsay (1998) empirically examined whether there is a positive relation between the level of director share ownership and the performance of Australian firms. They suggested that there is a positive correlation between director share ownership and returns to shareholders, so that the Australian listed firms should encourage their directors to increase their personal shareholdings.

Frydman, Gray, Hessel and Rapaczynski (1997) found that, however, in the transition economies like the Czech Republic, Hungary, and Poland, outsider-owned firms perform better than insider-owned firm in terms of privatisation in the countries undergoing postcommunist transition. Hence, there may have unique economic environmental factors that determine the appropriate level of insider ownership in an individual economy rather having a certain level of insider ownership for all economies.

The remaining findings in Table 5.2 are discussed here. The manufacturing industry variable MFG is insignificantly negative, but the IT coefficient is statistically significant and positively related to firm value. These results are consistent with a situation in which the IT industry in Korea in 1999 was becoming more profitable and was replacing the less profitable manufacturing industry. The FIN parameter estimate is not statistically significantly different from zero. LNDA is negatively related with firm value and LNLIQ is positively related with firm value, which are consistent with Morck et al. (1988a) and Cho (1998). There is a negative relation between the investment variable LNNINVTA and firm value. Perhaps this reflects the financial instability around 1999. In fact, most firms in Korea were affected by the 1997 crisis and their level of investment shrank.

Insider ownership regression

While the results found above in this study and other consistent studies suggest insider ownership affects non-monotonously corporate value, Demsetz and Lehn (1985), Murphy (1985), Kole (1994), Cho (1998) argue that insider ownership structure is endogenously determined and provide evidence of a reversal of

causality in the ownership-corporate value relation, suggesting that corporate value could be a determinant of the insider ownership structure rather than being determined by insider ownership. Particularly Murphy (1985), Kole (1994) and Cho (1998) found that corporate value positively affects insider ownership, suggesting that insider ownership can represent an endogenous outcome of the compensation contracting process. Taken together, this possibility leads to the hypothesis that insider ownership and corporate value might be interdependent. That is, insider ownership affects corporate value, and corporate value, again, affects insider ownership and so forth.

To find out whether insider ownership is endogenously determined, an insider ownership equation is provided in Equation (5-4).

$$\text{LNINS} = f(\text{LNMBA, MFG, IT, FIN, LNAA, LNDA, LNLIQ}) \qquad (5\text{-}4)$$

In Table 5.3, the insider ownership regression results are first reported in the second column including only corporate value variable. The log-transformed market to book ratio of assets (LNMBA) is not statistically significant in the regression, although the sign of the coefficient for LNMBA is positive. Next, the insider ownership equation including control variables as shown in Equation (5-4) is reported in the third column. The results also show that corporate value is not a determinant of insider ownership despite the positive sign of its coefficient. Therefore, these findings here suggest that there is no reverse effect from corporate value to insider ownership for the Korean PLCs.

According to other findings with control variables reported in the third column, insiders hold fewer shares of equity in larger firms, which is consistent with Demsetz and Villalonga (2001) (see LNAA parameter). Log-transformed liquidity (LNLIQ) is positively related with insider ownership, suggesting that firms with higher liquidity have higher insider ownership. The log-transformed debt to assets ratio (LNDA) is negative to insider ownership, supporting the notion that higher debt levels lead insiders to hold fewer shares if creditors are important to the monitoring of management behaviour. This is consistent with Demsetz and Villalonga (2001). Finally, insiders' shares are lower in the information

technology industry, than for the other industries, while they are higher in the finance industry.

In conclusion, ignoring the endogeneity issue, the insider ownership regressions suggest that corporate value does not affect insider ownership.[5] Taken together, this finding and the results from the corporate value regression suggest that insider ownership affects corporate value, but not vice versa, which is generally consistent with Morck et al (1988a), Stulz (1988) and McConnell and Servaes (1990).

Table 5.3 Two-stage least square regressions of insider ownership structure on corporate value variable, control variables, and industrial variables.

	LNINS	LNINS
LNMBA	0.0050	0.0179
	(0.1210)	(0.2167)
MFG		0.0370
		(0.4943)
IT		-0.2939
		(-2.4559)**
FIN		0.2294
		(2.1168)**
LNDA		-0.1989
		(-1.9220)*
LNLIQ		0.5194
		(1.9004)*
LNAA		-0.0897
		(-4.4751)***
Constant	3.3309	3.6024
	(99.5633)***	(17.9159)***
Adj. R-sq.	-0.0021	0.1082

Note: Variable definitions are in Table 4.1. The sample in this table consists of 499 PLCs. The sample is a combination of 146 *chaebol* firms and 353 other PLCs. The *chaebol* firms are subsidiaries of the 30 largest *chaebols*, and the other PLCs are randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics (in parentheses) are corrected for heteroscedasticity using White's correction. The second column shows the figures with the ownership variable only. The third column includes the ownership variable and control variables and industrial dummy variables.
*** Significant at the 0.01 level
** Significant at the 0.05 level
* Significant at the 0.1 level

Ownership concentration and corporate value

Demsetz and Lehn (1985) find that there is no significant relationship between ownership concentration and accounting profit rates as a proxy for firm

performance for the U.S. firms in their study, which brings into question the theory of Berle and Means (1932). There are, however, many studies that find contradictory results about the relationship between ownership concentration and firm performance. Wruck (1989) found that the change in firm value at the announcement of a private sale is positively associated with the change in ownership concentration. Xu and Wang (1997) also found empirical evidence for the positive effects of ownership concentration on firm's performance for Chinese stock companies. Claessens (1996), and Claessens, Djankov and Pohl (1996) also suggested that more concentrated ownership is associated with higher valuation and profitability for the Czech and Slovak Republics, while Renneboog (2000) found that the ownership of most Belgian companies are highly concentrated on the controlling shareholders like holding companies with 43 per cent of shares, on average, in the listed firms, and there is little relation between ownership concentration and disciplinary function of the take-over market. On the contrary, Demsetz and Villalonga (2001) suggest that there is a negative relation between ownership concentration and firm value.

To examine these issues, Equations (5-5) and (5-6), which are adjusted from Equation (4-3) and (4-4), are estimated. The regression results are reported in Table 5.4.

$$LNMBA = f(LNL3S, MFG, IT, FIN, LNDA, LNLIQ, LNNINVTA) \quad (5\text{-}5)$$

$$LNL3S = f(LNMBA, MFG, IT, FIN, LNDA, LNLIQ, LNAA) \quad (5\text{-}6)$$

The regression results in the second column indicate that ownership concentration is not a determinant of corporate value in Korean PLCs. This result is consistent with Demsetz and Lehn (1985). Investment shows a negative relationship to firm value, the same result as in Table 5.2. IT and MFG are respectively positively and negatively related to firm value, which is also the same result as in Table 5.2.

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[5] The endogeneity issue is that ownership structure of firm is determined endogenously, as noted by Demsetz and Lehn (1985), Murphy (1985), Kole (1994) and Cho (1998).

Table 5.4 Adjusted two-stage least squares regressions between corporate value and ownership concentration variable with control variables and industrial variables

	LNMBA	LNL3S
LNMBA		-0.1208
		(-1.5016)
LNL3S	0.9069	
	(1.2408)	
MFG	-0.2040	0.0312
	(-2.6077)***	(0.5002)
IT	0.8736	-0.1187
	(5.0626)***	(-1.1426)
FIN	-0.1331	0.3175
	(-0.7696)	(3.9043)***
LNDA	-0.0753	-0.0680
	(-0.7598)	(-1.0030)
LNLIQ	0.6208	0.5084
	(1.3229)	(2.2776)**
LNNINVTA	-1.3756	
	(-5.7496)***	
LNAA		-0.0763
		(-5.0824)***
Constant	-3.1352	4.0073
	(-1.2127)	(25.5205)***
Adj. R-sq.	0.3965	0.0900

Note: Variable definitions are in Table 4.1. The sample in this table consists of 499 PLCs. The sample is a combination of 146 *chaebol* firms and 353 other PLCs. The *chaebol* firms are subsidiaries of the 30 largest *chaebols*, and the other PLCs are randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics (in parentheses) are corrected for heteroscedasticity using White's correction.

*** Significant at the 0.01 level
** Significant at the 0.05 level
* Significant at the 0.10 level

In the third column, the results show that there is no reverse effect of firm value on ownership concentration. Log-transformed average assets (LNAA) is negatively related to ownership concentration, suggesting that ownership is not concentrated in larger firms. The log-transformed liquidity (LNLIQ) is positively related with ownership concentration, suggesting that firms with higher liquidity may lead to higher ownership concentration. Finally, ownership concentration is significantly higher in the finance industry, while insignificant in the information technology industry and manufacturing industry.

Ownership composition and corporate value

To go one step further in this section, the regression results on the relationship between ownership composition and corporate value are discussed. The relationships between ownership composition variables and corporate value are

explored using corporate value Equations (5-7), (5-8), (5-9), and (5-10), and ownership composition Equations (5-11), (5-12), (5-13) and (5-14). Equation (5-7) has the log-transformed largest shareholder's share fraction (LNLS) as one of the independent variables with the control variables and the industrial dummy variables, and also has the log-transformed market-to-book ratio of assets (LNMBA) as a dependent variable. The log-transformed president direct share fraction (LNPDS), the log-transformed foreigners' share fraction (LNFS), and the log-transformed financial institutions' share fraction (LNFIS) as explanatory variables are estimated respectively in Equations (5-8), (5-9), and (5-10) with the control variables and the industry variables.

$$LNMBA = f(LNLS, MFG, IT, FIN, LNLIQ, LNNINVTA, LNDA) \quad (5\text{-}7)$$

$$LNMBA = f(LNPDS, MFG, IT, FIN, LNLIQ, LNNINVTA, LNDA) \quad (5\text{-}8)$$

$$LNMBA = f(LNFS, MFG, IT, FIN, LNLIQ, LNNINVTA, LNDA) \quad (5\text{-}9)$$

$$LNMBA = f(LNFIS, MFG, IT, FIN, LNLIQ, LNNINVTA, LNDA) \quad (5\text{-}10)$$

The regression results are presented in Table 5.5. The results reported in the second and third columns indicate that the largest shareholders' share fraction (LNLS) and president direct share (LNPDS) are positively related to corporate value. These results suggest that the largest shareholders and top management who have a smaller share could be irresponsible in management, and consequently, the value of firm would decrease, which is consistent with Berle and Means (1932).

The fourth and fifth columns of Table 5.5 provide the regression estimates of Equations (5-9) and (5-10). The results show that the level of shares of financial institutions is positively related to corporate value, suggesting that monitoring by financial institutions having shares would protect management entrenchment. This result is different from evidence from Kutsuna, Okamura, and Cowling (2002) who analysed the relation between performance and ownership structure for Japanese companies. They found that the banks' shareholdings are statistically insignificantly related to firm performance of Japanese companies. Another

interesting result here is that foreigners' share has a negative relation to firm value.[6] The largest shareholders' share is highly correlated with insiders' share as shown in Table 4.5, suggesting that the shares controlled by insiders and management positively affect corporate value, while the shares controlled by outsiders of firm such as foreigners' share have a negative effect on firm value.

Table 5.5 Adjusted two-stage least square regressions of corporate value on ownership composition variables, control variables, and industrial variables.

	LNMBA	LNMBA	LNMBA	LNMBA
LNLS	1.6675			
	(11.0102)***			
LNPDS		1.8781		
		(6.6825)***		
LNFS			-0.4380	
			(-7.4698)***	
LNFIS				2.4607
				(5.7461)***
MFG	-0.3000	-0.1170	-0.1281	-0.2441
	(-4.8173)***	(-0.9400)	(-1.6428)	(-2.1545)**
IT	1.0368	1.3267	0.6599	1.2338
	(8.9487)***	(7.1133)***	(5.0894)***	(5.8802)***
FIN	-0.4579	-2.0587	0.2824	-1.5753
	(-5.0621)***	(-8.4943)***	(2.8575)***	(-5.3634)***
LNLIQ	-0.4698	-0.7989	2.0798	1.9435
	(-1.1998)	(-1.5921)	(1.3077)	(10.2607)***
LNNINVTA	-1.2807	-1.8236	-1.9415	-0.1274
	(-6.6897)***	(-7.1620)***	(-7.3408)***	(-0.3545)
LNDA	0.1812	0.4736	-0.1128	-0.1043
	(2.3296)**	(2.6482)***	(-1.1256)	(-0.6935)
Constant	-4.5826	-4.6464	0.3879	-5.0781
	(-10.7400)***	(-6.4277)***	(4.2103)***	(-5.7495)***
Adj. R-sq	0.5245	0.5812	0.5529	0.6756

Note: Variable definitions are in Table 4.1. The sample in this table consists of 499 PLCs. The sample of the second column regressions consists of 499 PLCs, the sample of the third column regressions consists of 180 PLCs, and the sample of the fourth column regressions consists of 296 PLCs. The sample of the last column regressions consists of 106 PLCs. The PLCs are randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics (in parentheses) are corrected for heteroscedasticity using White's correction.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.1 level

To find out whether the reverse effects of corporate value on ownership composition variables, the adjusted equations are the following.

[6] There is a unverified assumption in the Korean stock market that foreigners are market leaders, so as foreigners get more shares of the firms, whose share prices go up. Despite the regressions here used MBA as a firm performance proxy. MBA is not quite same as share prices.

LNLS= f (LNMBA, MFG, IT, FIN, LNDA, LNLIQ, LNAA) (5-11)

LNPDS= f (LNMBA, MFG, IT, FIN, LNDA, LNLIQ, LNAA) (5-12)

LNFS= f (LNMBA, MFG, IT, FIN, LNDA, LNLIQ, LNAA) (5-13)

LNFIS= f (LNMBA, MFG, IT, FIN, LNDA, LNLIQ, LNAA) (5-14)

The regressions reported in the second and third columns of Table 5.6 show that there are no significant effects of corporate value on the largest shareholders' share and president direct share. These suggest that there are no reverse effects between corporate value, and these aspects of shareholder composition. Another significant result is the negative effect of average assets on the largest shareholders' share and president direct share, suggesting that the largest shareholders and top management hold a smaller proportion of the ownership in larger firms.

Table 5.6 Adjusted two-stage least square regressions of ownership composition on corporate value variable, control variables, and industrial variables

	LNLS	LNPDS	LNFS	LNFIS
LNMBA	-0.0147	-0.3861	0.9258	0.3460
	(-0.1151)	(-1.2202)	(2.1594)**	(0.5384)
MFG	0.0443	-0.0440	0.5380	0.0929
	(0.5577)	(-0.2341)	(2.0823)**	(0.4693)
IT	-0.1855	0.1405	-0.4585	-0.4480
	(-1.2394)	(0.3512)	(-0.9607)	(-0.6803)
FIN	0.3604	0.3272	0.2850	0.6430
	(3.2120)***	(0.3382)	(0.7598)	(2.8096)***
LNDA	-0.0576	-0.2468	-0.7934	0.0424
	(-0.7704)	(-1.4629)	(-3.2750)***	(0.1926)
LNLIQ	0.3479	0.1489	4.4515	-0.7249
	(1.5132)	(0.3085)	(1.2029)	(-0.7547)
LNAA	-0.1061	-0.2869	0.6064	-0.0090
	(-3.6014)***	(-2.3036)**	(5.6627)***	(-0.0811)
Constant	3.4871	4.0339	-3.7800	2.1271
	(16.4992)***	(5.9148)***	(-4.4494)***	(2.6139)***
Adj. R-sq.	0.1060	0.0446	0.1138	0.0520

Note: Variable definitions are in Table 4.1. The sample in this table consists of 499 PLCs. The sample is a combination of 146 *chaebol* firms and 353 other PLCs. The sample of the second column regressions consists of 499 PLCs, the sample of the third column regressions consists of 180 PLCs, the sample of the fourth column regressions consists of 296 PLCs and the sample of the last column regressions consists of 106 PLCs. The *chaebol* firms are subsidiaries of the 30 largest *chaebols*, and the other PLCs are randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. t-statistics (in parentheses) are corrected for heteroscedasticity using White's correction.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.1 level

The fourth column reports the foreigners' share regression results. An interesting result is that foreigners hold more shares when firms perform well, which is different from the results of the two ownership composition variables, LNLS and LNPDS, as discussed just before. Foreigners also hold more shares of larger manufacturing companies rather than smaller finance and information technology companies.

The last column indicate that there is no reversal effect of corporate value on financial institutions' share, suggesting that the share of financial institutions are not determined by firm performance, but by exogenous determinants.

Robustness of the results

Variations on the models are also examined although not reported here. To provide some variety by analysis, other firm value variables such as return of assets (ROA), return on equity (ROE), economic value added (EVA) and economic value added to average assets (EVAA) are used as the measures of firm value, in place of market to book ratio of assets (LNMBA). The results from those variations are generally consistent with the main findings discussed earlier in this chapter, or insignificant, suggesting that the variations on corporate value measures do not provide significantly different results.

Next, more and more studies prefer to use the two stage least squares (2SLS) regression and three stage least squares regression (3SLS) rather than ordinary least squares regression (OLS).[7] Because 2SLS and 3SLS regressions provide qualitatively similar results, the results from the 2SLS regressions are reported here (Griffiths, Hill, and Judge, 1993). The ordinary least squares (OLS) regressions, however, are also estimated, although not reported here in this thesis. The OLS results are generally consistent with the central findings presented in the previous sections. Results obtained, therefore, give no reason to alter the conclusions found about the relation between ownership structure and corporate value.

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[7] See Demsetz and Villalonga (2000), Cho (1998), and Boyle, Carter, and Stover (1998)

Finally, Chow-tests were estimated and results show that there might be a difference between the regression results of *chaebol* firms and other PLCs, so that the next chapter discusses the comparative analysis between two-sample groups.

Summary and conclusion

In this chapter, the relationships between corporate performance and ownership structure were analysed for the Korean PLCs. The dimensions of ownership structure examined here were the extent of insider ownership, the degree of ownership concentration, and the features of the composition of ownership. It has been suggested that there is a significant non-monotonous relation between the level of insider ownership and corporate value. Ignoring the endogeneity issue, the results here show that insider ownership affects corporate value, but not vice versa, which is generally consistent with Morck et al (1988a), Stulz (1988) and McConnell and Servaes (1990).

The level of corporate value declines as insider ownership increases up to 15 per cent. It rises as insider ownership increases up to 35 per cent and then declines again after 35 per cent. The relation between insider ownership and corporate value is significant ownership level between 0 per cent and 35 per cent, but is insignificant for levels above 35 per cent. In the case of Korean PLCs, insider ownership of around 35 per cent might be recommended to add to corporate value, so that the current shares of insider ownership of around 50 per cent should be diminished.

In the results of insider ownership regression, corporate value is not statistically significant. These results suggest that firm value does not affect significantly insider ownership. Therefore, the findings also suggest that there is no reverse effect from corporate value to insider ownership for the Korean PLCs.

Ownership concentration is not a determinant of corporate value, suggesting that the level of ownership concentration do not affect significantly firm value for the Korean PLCs, which is consistent with Demsetz and Lehn (1985). No reversal effect of firm value on ownership concentration was found.

On the question of the relationship between ownership composition and corporate value, president direct share and the largest shareholders' share positively affects corporate value, while foreigners' share has a negative relationship with firm value. Top managers having a smaller share could lead to irresponsible management and, consequently, cause the value of the firm to decrease. This result supports the view of Berle and Means (1932). The largest shareholders' share is highly correlated with insiders' share, suggesting that the shares held by insiders and management positively affect corporate value, while shares held by outsiders of firm such as foreigners' share are negative on firm value. On the other hand, there are no reciprocal effects between corporate value and the largest shareholders' share, president direct share and financial institutions' share. Foreigners hold more shares of firms that perform well, and hold shares of larger manufacturing companies rather than smaller finance and information technology companies.

6

Comparative analysis of the relationship between ownership structure and corporate value for the Korean *chaebol* firms and non-*chaebol* firms

This chapter elucidates the similarities and differences of the relationship between ownership structure and corporate value between the Korean *chaebol* firms and non-*chaebol* firms. The Chow-test results show that there is a statistical difference between the regression results of the *chaebol* firms and the non-*chaebol* firms, so that in this chapter the results for the two groups are compared. It presents the results of the regressions and discusses the main findings of the models established in the last chapter. The first section presents comparatively the piecewise ordinary least squares regression results for the both *chaebol* firms and the non-*chaebol* firms with the alternative break points method used in the last chapter. The second section discusses the regression results on the significance of the reversal effects of insider ownership on corporate value for the both *chaebol* firms and the non-*chaebol* firms. The regression results which test the relationship between ownership concentration and corporate value for the both sample groups are presented in the third section. The fourth section examines the relationships between ownership composition variables and corporate value for the both groups. The robustness of the results is investigated in the fifth section. The final section summarises the results found in the earlier sections and provides a conclusion.

Piecewise linear regression results

Morck et al. (1988a) and Cho (1998) found a non-linear relation between insider ownership and corporate value for the U.S. Fortune 500 firms as discussed in the last chapter. In this section, their methods are replicated to explore the relation between two variables for the both *chaebol* firms and non-*chaebol* firms. Morck et al.'s piecewise linear regression results with the break points are reported in the previous chapter. Morck et al. found that firm performance rises as ownership

increases from 0 per cent to 5 per cent, falls as ownership rises further to 25 per cent, and then continues to rise, although much more slowly, as ownership rises beyond 25 per cent. Although not statistically significant above 25 per cent, their results suggest a significant non-monotonous relation between the level of insider ownership and firm performance.[1]

Cho (1998) also found a significant non-linear relation between insider ownership and corporate value, consistent with Morck et al. (1988). This non-monotonous relation between insider ownership and corporate value, however, proposed other break points of 7 per cent and 38 per cent using the grid search technique.[2] The piecewise regression results provide that the relation between insider ownership and Tobin's Q is significantly positive for ownership levels below 7 per cent, significantly negative for levels between 7 per cent and 38 per cent, and positive, but insignificant, for levels above 38 per cent.[3]

Following Morck et al. (1988a) and Cho (1998), the piecewise linear regression of corporate value on insider ownership are replicated as shown in Equation (6-1) for the both *chaebol* firms and non-*chaebol* firms.[4]

$$LNMBA = f\,(INS1, INS2, INS3, LNNINVTA, LNDA, LNLIQ, MFG, IT, FIN) \quad (6\text{-}1)$$

Table 6.1 presents the results of the piecewise regressions of corporate value on insider ownership and other control variables, which replicate Morck et al (1988a). The figures for the *chaebol* firms are shown in the second and third columns, and the figures for the non-*chaebol* firms are shown in the fourth and fifth columns. The results suggest that all of the three-ownership levels are generally not significant. Only the ownership level below 5 per cent for the non-

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[1] See Equation (5-1) in chapter 5.
[2] To find two break points, starting with 0 %, firstly seeking the insider ownership level that produces the most significant slope coefficient on the first insider ownership variable. Then search for the second level that yields the most significant slope coefficients on the second and the third variables in the regression. Finally seeking the two levels that provide the most significant slope coefficients on the three insider ownership variables simultaneously.
[3] See Equation (5-2) in chapter 5.
[4] For the model specification and diagnostic tests, see chapter 4.

chaebol firms is significant, the sign of coefficient is reversed from that of Morck et al..

Table 6.1 Comparative analysis of the piecewise linear ordinary least squares regressions.

	Chaebol firms		Non-*chaebol* firms	
	LNMBA		LNMBA	
INS1	0.0316	0.0161	-0.2743	-0.1703
	(0.3074)	(0.3044)	(-1.6560)*	(-2.8026)***
INS2	-0.0088	-0.0050	0.0133	0.0076
	(-1.3324)	(-0.9243)	(1.3119)	(0.9893)
INS3	0.0004	-0.0009	-0.0035	-0.0020
	(0.1323)	(-0.2952)	(-1.0389)	(-0.7767)
MFG		-0.1793		-0.1350
		(-3.1688)***		(-1.1832)
IT		0.4640		0.8621
		(3.8335)***		(4.8008)***
FIN		0.1628		-0.0573
		(1.8817)*		(-0.4871)
LNDA		-0.1534		-0.1113
		(-1.7320)*		(-1.0082)
LNLIQ		-1.2226		0.9489
		(-2.2214)**		(2.6607)***
LNNINVTA		-1.1075		-1.4257
		(-4.7464)***		(-4.7717)***
Constant	0.0393	-0.0317	1.6020	0.8923
	(0.0816)	(-0.1474)	(2.0088)**	(3.1270)***
Adj. R-sq.	-0.0060	0.4268	0.0026	0.3846

Note: The regressions of corporate value on inside ownership share fraction with the break points of Morck et al. (1988a), control variables, and industrial variables. Variable definitions are in Table 4.1. The sample is a combination of 146 *chaebol* firms and 353 non-*chaebol* firms randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics (in parentheses) are corrected for heteroscedasticity using White's correction.

INS1 = insider ownership if insider ownership < 5%,
= 5% if insider ownership ≥ 5%;

INS2 = 0 if insider ownership < 5%,
= insider ownership – 5% if 5% ≤ insider ownership < 25%,
= 20% if insider ownership ≥ 25%;

INS3 = 0 if insider ownership < 25%,
= insider ownership – 25% if insider ownership ≥ 25%.

*** Significant at the 0.01 level
** Significant at the 0.05 level
* Significant at the 0.1 level

Replicating Cho (1998), the piecewise linear ordinary least squares regression results for the both *chaebol* firms and non-*chaebol* firms are also reported in Table 6.2. The regressions including only insider ownership variables are shown in the second and fourth column. Both the results for the *chaebol* firms in the second and third columns are similar, but they are insignificant and different from the results of Cho (1998). Both the results for the non-*chaebol* firms in the fourth

and fifth columns are generally insignificant, which is also different from the results of Cho (1998). Therefore, neither the break points of Morck et al.(1988a) nor those of Cho (1998) apply to the Korean data set.

Table 6.2 Comparative analysis of the piecewise linear ordinary least squares regressions.

	Chaebol firms		Non-*chaebol* firms	
	LNMBA	LNMBA	LNMBA	LNMBA
INS1	-2.0672	-1.8851	-18.1431	-10.3789
	(-0.4043)	(-0.6870)	(-1.8371)*	(-2.4756)**
INS2	-0.5632	-0.0792	0.5395	0.4456
	(-1.3980)	(-0.2555)	(1.0058)	(1.2251)
INS3	0.4245	-0.3402	-0.4258	-0.3571
	(0.7808)	(-0.6375)	(-0.9177)	(-1.1799)
MFG		-0.1879		-0.1453
		(-3.3065)***		(-1.2730)
IT		0.4653		0.8543
		(3.9014)***		(4.7678)***
FIN		0.1658		-0.0697
		(1.8800)*		(-0.5941)
LNDA		-0.1615		-0.1108
		(-1.8102)*		(-1.0065)
LNLIQ		-1.2839		0.9331
		(-2.3553)**		(2.6448)***
LNNINVTA		-1.1030		-1.4332
		(-4.7630)***		(-4.8252)***
Constant	0.2936	0.1188	1.5821	0.7977
	(0.8805)	(0.6876)	(2.3902)**	(2.6833)***
Adj. R-sq	-0.0006	0.4263	0.0029	0.3853

Note: The regressions of corporate value on insider ownership share fraction with the break points of Cho (1998), control variables, and industrial variables for the both *chaebol* firms and non-*chaebol* firms. Variable definitions are in Table 4.1. The sample is a combination of 146 *chaebol* firms and 353 non-*chaebol* firms randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics (in parentheses) are corrected for heteroscedasticity using White's correction.

INS1 = insider ownership if insider ownership < 7%
= 7% if insider ownership ≥ 7%;
INS2 = 0 if insider ownership < 7%
= insider ownership – 7% if 7%≤ insider ownership < 38%;
= 31 % if insider ownership ≥ 38%;
INS3 = 0 if insider ownership < 38%
= insider ownership– 38% if insider ownership ≥ 38%.
*** Significant at the 0.01 level
** Significant at the 0.05 level
* Significant at the 0.1 level

To examine whether the use of the alternative break points found in the last chapter is effective for the *chaebol* firms and the non-*chaebol* firms, the piecewise regression using these break points are estimated in Table 6.3. The regression results suggest that there are significant similarities and differences between the

results for the *chaebol* firms and the non-*chaebol* firms. One of the similarities between the results for the both sample groups is that the level of corporate value declines as insider ownership increases up to 15 per cent, and rises as insider ownership increases up to 35 per cent and then declines again after 35 per cent. One of the differences is that the relationship between insider ownership and corporate value for the non-*chaebol* firms is much more significant at ownership levels between 0 per cent and 35 per cent than that for the *chaebol* firms. In the studies of Morck et al.(1988a) and Cho (1998), respectively 5 per cent and 7 per cent would be optimal levels of insider ownership for higher firm value. According to the results here, however, particularly for the non-*chaebol* firms, around 35 per cent of insider ownership might be recommended for their higher corporate value.

The results here in this analysis are also broadly consistent with Stulz (1988) and McConnell and Servaes (1990). At insider ownership levels below 15 per cent and above 35 per cent, the results are consistent with the arguments of Jensen and Murphy (1990), Slovin and Sushka (1993), and Boyle, Carter and Stover (1998) who support entrenchment theory. The results here are also consistent with Berle and Means (1932), Jensen and Meckling (1976), and Lewellen, Loderer and Rosenfeld (1985), who warned about the problems of highly dispersed ownership in modern corporations, especially at insider ownership level between 15 per cent and 35 per cent.

The remaining findings in Table 6.3 are discussed here. The manufacturing industry variable MFG is generally negative, but the IT coefficient is statistically significant and positively related to firm value. These results are consistent with a situation in which the IT industry in Korea in 1999 was becoming more profitable while the manufacturing industry was less profitable. The financial firms among the *chaebols* have higher corporate value, while the non-*chaebol* financial firms do not perform well. Perhaps the *chaebol* financial firms have much more clients and transaction opportunities due to their business backgrounds. LNDA is negatively related with firm value. LNLIQ affects positively firm value for the non-*chaebol* firms, while its effect is negative for the *chaebol* firms. There is a negative relationship between the investment variable LNNINVTA and firm value

for the both sample groups. Perhaps this reflects the financial instability around 1999. In fact, most firms in Korea were affected by the 1997 crisis and their level of investment shrank.

Table 6.3 Comparative analysis of the piecewise linear ordinary least squares regressions.

	Chaebol firms		Non-*chaebol* firms	
	LNMBA	LNMBA	LNMBA	LNMBA
INS1	-0.5626	-0.0095	-3.2153	-0.0316
	(-0.3990)	(-0.8893)	(-1.2714)	(-1.7118)*
INS2	-0.6477	0.0009	1.1468	0.0118
	(-1.0375)	(0.1764)	(1.4419)	(2.0508)**
INS3	0.3025	-0.0033	-0.5190	-0.0048
	(0.5869)	(-0.6608)	(-1.1837)	(-1.5751)
MFG		-0.1864		-0.1672
		(-3.3153)***		(-1.4537)
IT		0.4686		0.8452
		(3.9516)***		(4.7843)***
FIN		0.1712		-0.0881
		(1.9484)*		(-0.7445)
LNDA		-0.1614		-0.1187
		(-1.8280)*		(-1.0747)
LNLIQ		-1.2909		0.9082
		(-2.3878)**		(2.5948)***
LNNINVTA		-1.0980		-1.4401
		(-4.7910)***		(-4.8680)***
Constant	0.2936	0.0986	0.7617	0.4962
	(0.8805)	(0.7154)	(2.3538)**	(1.9414)*
Adj. R-sq	-0.0006	0.4275	-0.0003	0.3887

Note: The regressions of corporate value on insider ownership share fraction with the alternative break points, control variables, and industrial variables for the both *chaebol* firms and non-*chaebol* firms. Variable definitions are in Table 4.1. The sample is a combination of 146 *chaebol* firms and 353 non-*chaebol* firms randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics (in parentheses) are corrected for heteroscedasticity using White's correction.

INS1 = insider ownership if insider ownership < 15%,
= 15% if insider ownership ≥ 15%;

INS2 = 0 if insider ownership < 15%,
= insider ownership – 15% if 15% ≤ insider ownership < 35%,
= 20% if insider ownership ≥ 35%;

INS3 = 0 if insider ownership < 35%,
= insider ownership – 35% if insider ownership ≥ 35%.

*** Significant at the 0.01 level
** Significant at the 0.05 level
* Significant at the 0.1 level

Insider ownership regression

Demsetz and Lehn (1985), Murphy (1985), Kole (1994), Cho (1998) argue that insider ownership structure is endogenously determined and provide evidence of a reversal of causality in the ownership-corporate value relation, suggesting that corporate value could be a determinant of the insider ownership structure rather

than being determined by insider ownership. Particularly Murphy (1985), Kole (1994) and Cho (1998) found that corporate value positively affects insider ownership, suggesting that insider ownership can represent an endogenous outcome of the compensation contracting process. Taken together, this possibility leads to the hypothesis that insider ownership and corporate value might be interdependent. That is, insider ownership affects corporate value, and corporate value, again, affects insider ownership and so forth.

To find out whether insider ownership is affected by firm value and is endogenously determined, the insider ownership regression equation is specified as in Equation (6-2).

$$\text{LNINS} = f(\text{LNMBA, MFG, IT, FIN, LNAA, LNDA, LNLIQ}) \qquad (6\text{-}2)$$

In Table 6.4, the insider ownership regression results are first reported in the second and fourth columns including only the corporate value variable. Then the regression results with the control variables and industrial dummy variables are presented in the third and fifth columns. The log-transformed market to book ratio of assets (LNMBA) is not statistically significant in the regression for the *chaebol* firms in the second and third columns. However, the results for the non-*chaebol* firms are somewhat different from those for the *chaebol* firms. Both the signs of the coefficients of LNMBA in the fourth and fifth columns are positive in the estimations, which is consistent with Murphy (1985), Kole (1994) and Cho (1998). These results suggest that firm value does not affect significantly insider ownership for the *chaebol* firms, but there is a positive relation of firm value on insider ownership for the non-*chaebol* firms. These perhaps reflect that firm performance for the smaller non-*chaebol* firms is much more sensitive to insider ownership than for the larger *chaebol* firms.

For other findings with control variables from the third and fifth columns, insiders hold less shares of equity in larger firm for the non-*chaebol* firms, which is consistent with Demsetz and Villalonga (2001) (see LNAA parameter), while insignificant for the *chaebol* firms. The signs of the coefficients of the log-transformed liquidity (LNLIQ) are positive for the both *chaebol* and non-*chaebol*

firms, but insignificant. The log-transformed debt to assets ratio (LNDA) is negative to insider ownership for the both sample groups, supporting the notion that higher debt levels lead insiders to hold fewer shares if creditors are important to the monitoring of management behaviour. This is consistent with Demsetz and Villalonga (2001). Finally, Insiders' shares are significantly lower for the non-*chaebol* firms in the information technology industry, while not significant for the *chaebol* firms. For the non-*chaebol* finance firms, insiders' shares are significantly higher than for the *chaebol* finance firms. In the manufacturing industry, insiders still hold many shares for *chaebol* firms, while insignificant for the non-*chaebol* firms. Most *chaebols* are initially established in the form of the traditional manufacturing firms such as electronics, motors, heavy and chemical industries, so that insiders seem to still rely on their mother companies with many shares.

Table 6.4 Comparative analysis of adjusted two-stage least square regressions.

	Chaebol firms		Non-*chaebol* firms	
	LNINS	LNINS	LNINS	LNINS
LNMBA	-0.0177	0.2717	0.1091	0.0448
	(-0.0827)	(0.8524)	(1.9322)*	(0.4303)
MFG		0.1466		0.0260
		(0.8931)***		(0.2751)
IT		-0.4463		-0.4131
		(-1.2198)		(-2.9610)***
FIN		0.0775		0.4009
		(0.3029)		(2.8524)***
LNDA		-0.8615		-0.2109
		(-3.0936)***		(-1.7269)*
LNLIQ		0.6908		0.4542
		(0.4126)		(1.5906)
LNAA		-0.0133		-0.1047
		(-0.1732)		(-4.1614)***
Constant	3.1477	2.6156	3.3623	3.6264
	(53.2481)***	(4.0183)***	(78.5949)***	(15.9024)***
Adj. R-sq.	-0.0072	0.1334	0.0080	0.0963

Note: The analysis of adjusted two-stage least square regressions of insider ownership structure on corporate value variable, control variables, and industrial variables. Variable definitions are in Table 4.1. The sample in this table consists of 146 *chaebol* firms and 353 non-*chaebol* firms. The *chaebol* firms are subsidiaries of the 30 largest *chaebols*, and the non-*chaebol* firms are randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics (in parentheses) are corrected for heteroscedasticity using White's correction.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.10 level

In conclusion, there are conflicting results for the *chaebol* and non-*chaebol* firms. For the *chaebol* firms, ignoring the endogeneity issue, corporate value does not affect insider ownership. However, firm value affects positively insider ownership for the non-*chaebol* firms. Taken together, these findings and the results from the corporate value regression suggest that insider ownership affects non-monotonously corporate value for the non-*chaebol* firms but is insignificant for the *chaebol* firms, while corporate value affects insider ownership for the non-*chaebol* firms but is insignificant for the *chaebol* firms. In other words, there are mutually significant relationships between firm value and insider ownership for the relatively smaller non-*chaebol* firms, however, firm value does not affect insider ownership in the relatively larger *chaebol* firms.

Ownership concentration and corporate value

Demsetz and Lehn (1985) empirically suggest that there is no significant relationship between ownership concentration and accounting profit rates as a proxy for firm performance for the U.S. firms in their study, which brings into question the theory of Berle and Means (1932). There are, however, many studies that found conflicting results of the relationship between ownership concentration and firm performance. Wruck (1989) and Xu and Wang (1997) found that there is a positive relationship between ownership concentration and firm performance. On the contrary, Demsetz and Villalonga (2001) suggest that there is a negative relationship between ownership concentration and firm value.

In this section, the regressions to test the relationship between firm value and ownership concentration for the both Korean *chaebol* firms and non-*chaebol* firms are reported here in Table 6.5. The equations estimated are shown in Equations (6-3) and (6-4).

$$LNMBA = f(LNL3S, MFG, IT, FIN, LNDA, LNLIQ, LNNINVTA) \quad (6\text{-}3)$$

$$LNL3S = f(LNMBA, MFG, IT, FIN, LNDA, LNLIQ, LNAA) \quad (6\text{-}4)$$

The regression results in the second and fourth columns indicate that ownership concentration is not a determinant of corporate value, suggesting that the level of

ownership concentration does not affect significantly firm value for the both *chaebol* firms and non-*chaebol* firms, which is consistent with Demsetz and Lehn (1985). Despite, however, a difference between the results for two sample groups in the second and fourth columns is that the signs of the coefficients of LNL3S are conflict: negative for the *chaebol* firms; but positive for the non-*chaebol* firms. This difference might suggest that higher ownership concentration would affect positively corporate value for the relatively smaller non-*chaebol* firms, while ownership concentration would affect negatively for the relatively larger *chaebol* firms. Investment and debt ratio show negative relations to firm value for the both *chaebol* and non-*chaebol* firms. IT and MFG are respectively positive and negative on firm value for the both sample groups. However, *chaebol* finance firms have higher firm value, while non-*chaebol* finance firms have relatively lower firm value compare to other industries. Perhaps the *chaebol* finance firms have much more clients and trading opportunities because of their better reputations with more reliable business backgrounds.

From the third and fifth columns, the results show that there is no reverse effect of firm value on ownership concentration for the both *chaebol* and non-*chaebol* firms without any differences. Log-transformed average assets (LNAA) are negatively related to ownership concentration for the both sample groups, suggesting that ownership is not concentrated in larger firms. Log-transformed liquidity (LNLIQ) is positively related with ownership concentration for the both *chaebol* and non-*chaebol* firms, suggesting that firms with higher liquidity may lead to higher ownership concentration. Finally, ownership concentration is higher for the both *chaebol* and non-*chaebol* finance and manufacturing firms, while lower for the non-*chaebol* information technology firms.

Overall, despite of some differences of the signs and degrees of the relationship, the results above suggest that there is no statistically significant difference between the regression results for the *chaebol* firms and the non-*chaebol* firms in the relationship between ownership concentration and corporate value.

Table 6.5 Comparative adjusted two-stage least squares regressions between corporate value and ownership concentration with control variables, and industrial variables

	Chaebol firms		Non-*chaebol* firms	
	LNMBA	LNL3S	LNMBA	LNL3S
LNL3S	-0.4336		1.0378	
	(-0.9137)		(1.3058)	
LNMBA		-0.1571		-0.0640
		(-1.4097)		(-0.6140)
MFG	-0.1675	0.0615	-0.2259	0.0294
	(-2.4971)**	(0.6195)	(-1.8655)*	(0.3576)
IT	0.3679	0.0983	1.0081	-0.2578
	(3.1368)***	(0.4939)	(4.9512)***	(-2.0552)**
FIN	0.2832	0.1739	-0.2927	0.4997
	(1.8707)*	(1.4331)	(-1.4302)	(4.6526)***
LNDA	-0.0552	-0.1281	-0.0522	-0.0537
	(-0.5932)	(-0.8143)	(-0.4239)	(-0.7047)
LNLIQ	-0.8925	0.8568	0.4930	0.3709
	(-0.9019)	(0.7150)	(0.9848)	(1.5797)
LNNINVTA	-1.1813		-1.3282	
	(-5.7710)***		(-4.7249)***	
LNAA		-0.0886		-0.1087
		(-3.1914)***		(-4.5837)***
Constant	1.5777	4.1425	-3.5207	4.0615
	(0.9527)	(16.3232)***	(-1.2549)	(19.5115)***
Adj. R-sq.	0.3845	0.0546	0.4012	0.1014

Note: Variable definitions are in Table 4.1. The sample in this table consists of 146 *chaebol* firms and 353 non-*chaebol* firms. The *chaebol* firms are subsidiaries of the 30 largest *chaebols*, and the non-*chaebol* firms are randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics (in parentheses) are corrected for heteroscedasticity using White's correction.
*** Significant at the 0.01 level
** Significant at the 0.05 level
* Significant at the 0.10 level

Ownership composition and corporate value

To go one step further in this section, the relations between ownership composition variables: the largest shareholders' share fraction (LNLS), the foreigners' share fraction (LNFS), and the financial institutions' share fraction (LNFIS), and corporate value for the both *chaebol* firms and non-*chaebol* firms are comparatively examined. The relationship between corporate value and the extent of the presidents direct shares is not estimated, because the numbers of available observations for the presidents direct share fraction (LNPDS) are only six, which are not enough to estimate.[5] That is why the regression of the relationship between firm value and president direct shares for the *chaebol* and non-*chaebol* firms is not included in this analysis.

[5] In an econometric regression package, the minimum number of observations to estimate is ten.

First, Equations (5-5) and (5-6) are estimated comparatively for both the *chaebol* and non-*chaebol* firms to find out whether there is a relationship between the log-transformed largest shareholders' share fraction (LNLS) and corporate value (LNMBA).

$$LNMBA = f(LNLS, MFG, IT, FIN, LNLIQ, LNNINVTA, LNDA) \quad (5\text{-}5)$$

$$LNLS = f(LNMBA, MFG, IT, FIN, LNDA, LNLIQ, LNAA) \quad (5\text{-}6)$$

The regression results are presented in Table 6.6. The results reported in the second and fourth columns indicate that LNLS positively affects corporate value for the both *chaebol* and non-*chaebol* firms. One difference is that the degree of the relationship for non-*chaebol* firms is greater than that for the *chaebol* firms. Perhaps the largest shareholders in the non-*chaebol* firms are more responsible in management than those in the *chaebol* firms. These results also suggest that when the largest shareholders have a larger share they would have more responsibility in management and consequently, cause the value of the firm to increase, which supports the theory of Berle and Means (1932). The other results are shown in the second and fourth columns with other variables, but there are no statistical differences between the results for the *chaebol* firms and the non-*chaebol* firms.

The third and fifth columns of Table 6.6 provide the regression estimates of Equation (5-6). The results show that corporate value does not affect significantly the largest shareholders' share for the both *chaebol* and non-*chaebol* firms, suggesting that there is no reversal effect of corporate value on the largest shareholders' share. However, one difference is found that the signs of the coefficients of the firm value are conflict for two sample groups: negative for the *chaebol* firms, positive for the non-*chaebol* firms. The largest shareholders in the *chaebol* firms maybe sell their shares at higher price when firm performs well, while those in the non-*chaebol* firms are maybe compensated with shares when firm performs well.

The other significant similarities of the results for both the sample groups indicate the negative effects of LNAA and LNDA on the largest shareholders' share, suggesting that the largest shareholders hold fewer shares in larger firms with

higher debt. One difference of the results for the *chaebol* firms and the non-*chaebol* firms is the negative effect of membership of the IT industry on LNLS for the non-*chaebol* firms, while insignificantly positive for the *chaebol* firms, suggesting that the largest shareholders in the non-*chaebol* IT firms hold fewer shares than those in the *chaebol* IT firms.

Table 6.6 Adjusted two-stage least square regressions between corporate value and the largest shareholders' share fraction with control variables, and industrial variables.

	Chaebol firms		Non-*chaebol* firms	
	LNMBA	LNLS	LNMBA	LNLS
LNLS	0.3550		1.9096	
	(2.3590)**		(10.7647)***	
LNMBA		-0.2956		0.1417
		(-0.7959)		(0.9438)
MFG	-0.1993	0.0416	-0.3331	0.1064
	(-3.7705)***	(0.3212)	(-3.4917)***	(1.0426)
IT	0.5131	0.0731	1.3338	-0.4304
	(4.2535)***	(0.2630)	(8.9454)***	(-2.5129)**
FIN	0.1553	0.0774	-1.0299	0.6297
	(1.8561)*	(0.4168)	(-6.5277)***	(4.0067)***
LNLIQ	-1.8146	-1.5134	-0.5463	0.2401
	(-3.3141)***	(-0.7170)	(-1.3544)	(0.8172)
LNNINVTA	-1.1994		-0.8880	
	(-5.2942)***		(-3.8042)***	
LNDA	-0.0212	-0.1691	0.2180	-0.0799
	(-0.2190)	(-0.9318)	(2.3128)**	(-0.9640)
LNAA		-0.1479		-0.1089
		(-3.1130)***		(-2.0690)**
Constant	-0.9875	3.8240	-5.2392	3.3716
	(-2.3521)**	(10.0855)***	(-10.2845)***	(10.7255)***
Adj. R-sq	0.4501	0.0661	0.5612	0.1362

Note: Variable definitions are in Table 4.1. The sample of the second and third column regressions consists of 139 *chaebol* firms, and the sample of the fourth and fifth column regressions consists of 342 non-*chaebol* firms. The firms are randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics (in parentheses) are corrected for heteroscedasticity using White's correction.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.1 level

Second, Equations (5-7) and (5-8) are estimated comparatively for both the *chaebol* and non-*chaebol* firms to find out whether there are reciprocal relations between the foreigners' share fraction (LNFS) and corporate value.

$$LNMBA = f(LNFS, MFG, IT, FIN, LNLIQ, LNNINVTA, LNDA) \quad (5\text{-}7)$$

$$LNFS = f(LNMBA, MFG, IT, FIN, LNDA, LNLIQ, LNAA) \quad (5\text{-}8)$$

Table 6.7 provides the regression results of the relationships between foreigners' share and corporate value. The results in the second and fourth columns show that foreigners' shares affect negatively corporate value for both the *chaebol* and non-*chaebol* firms. It is an interesting result that when foreigners have more shares firms do not perform effectively, then firm value would decrease. One significant difference of the results between the *chaebol* firms and the non-*chaebol* firms is that corporate value in the non-*chaebol* manufacturing firms is high, while corporate value is low in the *chaebol* manufacturing firms.

Table 6.7 Adjusted two-stage least square regressions between corporate value and the foreigners' share fraction with control variables, and industrial variables.

	Chaebol firms		Non-*chaebol* firms	
	LNMBA	LNFS	LNMBA	LNFS
LNFS	-0.0675		-1.2816	
	(-2.4380)**		(-6.9038)***	
LNMBA		1.6379		0.8718
		(1.6330)*		(1.6525)*
MFG	-0.1614	0.0432	0.7144	0.8400
	(-2.7537)***	(0.1405)	(3.5370)***	(1.8965)*
IT	0.4513	-0.7752	1.0879	-0.1110
	(3.5142)***	(-1.0002)	(5.3220)***	(-0.1859)
FIN	0.2177	0.0221	1.1608	0.4442
	(2.0777)**	(0.0366)	(4.3751)***	(0.6946)
LNLIQ	-1.6183	30.0830	-0.1858	1.0457
	(-1.7309)*	(4.2857)***	(-0.0938)	(0.2650)
LNNINVTA	-1.2136		-2.8346	
	(-5.7180)***		(-7.8015)***	
LNDA	-0.2697	-1.3895	0.0284	-0.4240
	(-2.0777)**	(-2.0023)**	(0.2161)	(-1.2692)
LNAA		0.9588		0.6088
		(7.2175)***		(2.5638)**
Constant	-0.0294	-6.5982	0.2745	-3.6545
	(-0.3970)	(-6.0123)***	(1.9624)*	(-2.3547)**
Adj. R-sq	0.4684	0.2897	0.6096	0.0297

Note: Variable definitions are in Table 4.1. The sample of the second and third column regressions consists of 119 *chaebol* firms, and the sample of the fourth and fifth column regressions consists of 161 non-*chaebol* firms. The firms are randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics (in parentheses) are corrected for heteroscedasticity using White's correction.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.1 level

Next, the regressions reported in the third and fifth columns of Table 6.7 show an interesting result that foreigners hold many shares when firms perform well, which is different from the results of the LNLS equation as discussed earlier. Foreigners also prefer to hold shares of larger manufacturing companies rather than smaller information technology companies. One difference between the results for two sample groups is that foreigners are highly concerned about the liquidity and debt of firms when they choose to hold shares of the *chaebol* firms compared to the non-*chaebol* firms. They perhaps consider the *chaebols*' over-investment that follows from the mutual debt guarantee activity, which is prevalent among subsidiaries of most *chaebols*.[6] There is no other statistical difference between the results for the *chaebol* firms and the non-*chaebol* firms in these two columns.

Lastly, Equations (5-9) and (5-10) are estimated comparatively for both the *chaebol* and non-*chaebol* firms to find out whether the reciprocal relations between the financial institutions' shares (LNFIS) and corporate value (LNMBA) are existed.

$$LNMBA = f(LNFIS, MFG, IT, FIN, LNLIQ, LNNINVTA, LNDA) \quad (5\text{-}9)$$

$$LNFIS = f(LNMBA, MFG, IT, FIN, LNDA, LNLIQ, LNAA) \quad (5\text{-}10)$$

The regression results of the relations between financial institutions' shares and corporate value are presented in Table 6.8. The results in the second and fourth columns show that financial institutions' shares affect positively corporate value for the non-*chaebol* firms, while insignificant for the *chaebol* firms. Monitoring by financial institutions with many shares could lead firms to perform well. When financial institutions hold shares of the smaller non-*chaebol* firms, firms to be performed well. However, in the case of larger *chaebol* firms, a large financial institution share does not affect firm value. Another significant difference of the results between the *chaebol* firms and the non-*chaebol* firms is that corporate value for the non-*chaebol* finance firms is low.

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[6] See chapter 3.

The regressions reported in the third and fifth columns of Table 6.8 show an interesting result that financial institutions hold many shares in the *chaebol* firms when firms do not perform well, while their holding is insignificant for the non-*chaebol* firms. When *chaebol* firms do not perform well, financial institutions' generally choose to hold shares of the *chaebol* firms to support them or for the redemption of their money borrowed. Financial institutions also prefer to hold shares of larger *chaebol* IT and finance firms and non-*chaebol* finance firms, while avoiding manufacturing companies. Another difference between the results for two sample groups is that the debt of the *chaebol* firms affects financial institutions' shareholdings, while it is insignificant for the non-*chaebol* firms. Financial institutions might be concerned about the high debt from over-investment of most *chaebols* as foreigners do.

Table 6.8 Adjusted two-stage least square regressions between corporate value and the financial institutions' share fraction with control variables, and industrial variables.

	Chaebol firms		Non-*chaebol* firms	
	LNMBA	LNFIS	LNMBA	LNFIS
LNFIS	0.0104		1.5290	
	(0.0617)		(4.5432)***	
LNMBA		-2.3036		0.8239
		(-2.3669)**		(1.2459)
MFG	-0.1624	-0.1286	0.0540	-0.0318
	(-1.4119)	(-0.5034)	(0.3153)	(-0.1303)
IT	0.4545	1.4022	1.6848	-1.2622
	(2.3398)**	(2.3216)**	(8.0095)***	(-1.5532)
FIN	0.0702	0.9082	-1.2571	0.7902
	(0.4185)	(2.6100)**	(-4.0466)***	(2.3136)**
LNLIQ	-4.1829	5.9163	2.0503	-1.4978
	(-1.0533)	(1.0698)	(5.4731)***	(-2.0139)**
LNNINVTA	-0.8176		0.2379	
	(-1.6949)*		(0.4741)	
LNDA	-0.1097	-1.2657	-0.3495	0.2057
	(-0.5718)	(-2.3723)**	(-2.2478)**	(0.8036)
LNAA		0.2480		0.0403
		(1.9870)*		(0.2299)
Constant	-0.0151	-0.4402	-3.5196	2.0585
	(-0.0522)	(-0.4065)	(-4.2604)***	(2.0313)**
Adj. R-sq	0.2491	0.1171	0.7141	0.1700

Note: Variable definitions are in Table 4.1. The sample of the second and third column regressions consists of 50 *chaebol* firms, and the sample of the fourth and fifth column regressions consists of 56 non-*chaebol* firms. The firms are randomly selected from the 1,116 firms listed on the KSE and KOSDAQ in 1999. *t*-statistics (in parentheses) are corrected for heteroscedasticity using White's correction.

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.1 level

Robustness of the results

As the robustness tests have been done for the whole sample in the previous chapter, the similar tests are examined respectively for the two sample groups. Variations on the models are examined although not reported in detail here. Other firm value variables: return of assets (ROA); return on equity (ROE); economic value added (EVA) and economic value added to average assets (EVAA) are used as the measures of firm value to provide some variety by analysis, in place of market to book ratio of assets (LNMBA). The results from those variations are generally consistent with the main findings discussed earlier, suggesting that the variations on corporate value measures do not provide significantly different results.

In terms of regression methodology, the two stage least squares (2SLS) regression and three stage least squares regression (3SLS) are popularly used in current research rather than using the ordinary least squares regression (OLS) because 2SLS and 3SLS regressions provide qualitatively similar results as noted earlier.[7] Hence the results from the 2SLS regressions are reported here in this thesis. The ordinary least squares (OLS) regressions, however, are also estimated to find out whether or not the results are different from the 2SLS regression results, although not reported in detail here. The OLS results are generally consistent with the main findings presented in this chapter.

Results obtained, therefore, give no reason to alter the conclusions found about the relationship between ownership structure and corporate value for both the *chaebols* and non-*chaebols*.

Summary and conclusion

The comparative analyses of the relationship between corporate performance and ownership structure for the *chaebol* firms and the non-*chaebol* firms are examined. There are significant similarities and differences between the *chaebol*

[7] See Demsetz and Villalonga (2000), Cho (1998), and Boyle, Carter, and Stover (1998)

firms and the non-*chaebol* firms in the relationship between the level of insider ownership and corporate value.

One of the similarities is that the level of corporate value declines as insider ownership increases up to 15 per cent, and rises as insider ownership increases up to 35 per cent and then declines again after 35 per cent. One of the differences is that the relation between insider ownership and corporate value for the non-*chaebol* firms is much more significant at ownership levels between 0 per cent and 35 per cent than that for the *chaebol* firms. For the non-*chaebol* firms in Korea, around 35 per cent of insider ownership might be recommended for higher corporate value.

In the insider ownership regression results, there are conflicting results for the *chaebol* and non-*chaebol* firms. For the *chaebol* firms, ignoring the endogeneity issue, corporate value does not affect insider ownership. However, firm value affects positively insider ownership for the non-*chaebol* firms. Taken together, these findings and the results from the corporate value regression suggest that insider ownership affects non-monotonously corporate value for the non-*chaebol* firms but is insignificant for the *chaebol* firms, while in the reverse direction corporate value does affect insider ownership for the non-*chaebol* firms but is insignificant for the *chaebol* firms.

Ownership concentration is not a determinant of corporate value, suggesting that the level of ownership concentration does not affect significantly firm value for either the *chaebol* firms and non-*chaebol* firms, which is consistent with Demsetz and Lehn (1985). However, a difference is that the signs of the coefficients of ownership concentration variables are in conflict. Higher ownership concentration would affect positively corporate value for the relatively smaller non-*chaebol* firms, while it is negative for the relatively larger *chaebol* firms.

In terms of the relationship between ownership composition and corporate value, the largest shareholders' share positively affects corporate value for both the *chaebol* and non-*chaebol* firms. One difference is that the degree to which this occurs in the non-*chaebol* firms is greater than that in the *chaebol* firms.

Corporate value does not affect significantly the largest shareholders' share in either the *chaebol* and non-*chaebol* firms, suggesting that there is no reverse effect of corporate value on the largest shareholders' share. However, one difference is found that the signs of the coefficients of the firm value are conflict for two sample groups: negative for the *chaebol* firms, positive for the non-*chaebol* firms. Foreigners' shares affect negatively corporate value for both the *chaebol* and non-*chaebol* firms. More foreigners' shares cause firm value to decrease. Foreigners also hold many shares in both the *chaebol* and non-*chaebol* firms when firms perform well. Financial institutions' shares affect positively corporate value for the non-*chaebol* firms. Financial institutions also hold many shares in the *chaebol* firms when firms do not perform well.

7

Summary and Conclusions

This chapter reviews the discussion and main findings of previous chapters and provides suggestions that follow from testing of the hypotheses about the specific relationship between ownership structure and firm performance of the Korean PLCs. This thesis set out to examine whether there is a specific correlation between ownership structure and firm performance and, if so, in what ways the model asserted by Morck et al. (1988a) can be applied to the Korean case.

Summary

In summary, chapter 1 introduces the background and motivation of the study. Over the last four decades the Korean corporate sector led and contributed substantially to the high economic growth in Korea under the economic development policy of the government. This successful development model, however, brought about an economic concentration problem among the few big business groups and insolvent management. Thus the big business groups, the so-called *chaebol*, and the government's corporate sector policy became the main areas in need of reform. Among the debates about reform, the failure in corporate governance is most often cited as the cause of the crisis. In particular, many critics noted that the ownership structure of the Korean corporate organisations could induce inadequate monitoring and lack of checking as a result of failures in accounting transparency and monitoring mechanisms. In this regard, the question of whether the ownership structure of the Korean corporate organisations affects their firm value is the main motivation for this study.

The analytical issues together with the research questions and hypotheses are presented. The main issue is the relationship between ownership structure, which is one of the most important yet imperfect institutions in firms, and firm performance. The thesis also focuses on finding out if there are significant correlations between ownership structure and firm performance, and in what ways

they are manifest. There are five hypotheses established to answer the main question (See chapter 1). These examinations are based on the assertion as argued by Berle and Means (1932) that specific relations between ownership structure and corporate performance exist in modern corporations.

Since Berle and Means (1932) first raised the question and warned of dispersed ownership and separation of ownership and control in modern corporations, many analysts have argued the issue theoretically and empirically. The methodology of Morck, Vishny and Schleifer (1988a) is applied in this study.

Chapter 2 discusses the theoretical issues regarding the ownership structure of modern corporations. There are conflicting arguments. Berle and Means (1932) proposed three characteristics of modern firms as evidence of their entering the new era as economic organisations. First, big corporations are owned by a number of anonymous investors who hold only a few shares; second, most managers hold negligible (insignificant) quantities of shares; third, there are big differences between the interests of shareholders and managers. Berle and Means also pointed out that if corporate ownerships are widely dispersed, then conflicts between the shareholders and managers are inevitable. If the shareholders cannot exercise their voting rights, and the directors shirk supervising the managers on behalf of the shareholders, managers might laxly operate the firms, and pursue their own agendas for their own benefit. Berle and Means also raised the owner-agency problem: the conflict of interest between managers and owners affects corporate performance. Jensen and Meckling (1976) also presented an agency theory relating to corporate ownership. They argued that if ownership is transferred to outside investors, the opportunity cost of pursuing the non-pecuniary benefit is decreased, and the demand for transferring shares is increased. If an efficient stock market correctly assesses this situation, the corporate value will decrease. The decreased corporate value will become the agency cost for any change in the ownership structure. Jensen and Meckling, therefore, also support the proposition that a dispersed ownership structure induces an increase in agency cost and a decrease in corporate value.

Chandler (1990), on the other hand, advocates that separation of ownership and control is necessary in order to facilitate professional managers who have the required unique knowledge and excellence in management. Second, he argues that large-scale investment in production facilities is necessary to achieve economies of scale and scope. Fama and Jensen (1983) also argue that increased ownership concentration (any kind of owner) decreases corporate performance because it raises the firm's cost of capital as a result of decreased market liquidity or decreased diversification opportunities on behalf of the investor.

The agency problem is caused by separation of ownership and management, and wide dispersion of ownership in modern corporations. Since the presentation, about 70 years ago, by Berle and Means of ways to rectify the agency problem, the issue of improving and solving agency problems relating to corporate ownership has been a matter of wide discussion. There were two proposed approaches: the market disciplinary approach, which centred on Jensen's proposal, and the organisational behavioural approach, which centred on Porter. Jensen (1989) pointed out that open corporations have been the generative power of economic development over the last 100 years in the U.S.; however, they have now not only lost their utility in many areas, but they are also no longer effective corporate organisations in a modern competitive economy. He pointed out the new type of corporate organisations are characterised by high debt ratio, an incentive reward system, high shareholdings by managers and directors, and contracts between owners and creditors for concrete corporate activities including surplus cash flows. These characteristics are due, in part, to shareholder activism. Porter (1992) noted that the lower level of competitiveness of U.S. corporations, compared with Japanese and German corporations, was caused by the capital distribution mechanism. He presented a solution to strengthen the U.S. corporations' competitiveness by focusing on construction of legal and institutional mechanisms to promote the shareholder activism of institutional investors. Hence, the issue regarding ownership structure is not concluded, but remains a matter for argument.

The analytical issues about the Korean corporate organisations are addressed in chapter 3. This chapter outlines the historical overview and political economy in

Korea, the characteristics of the Korean corporate organisations focusing on the *chaebols*, and the nature of the *chaebol* issues: the economic concentration, corporate governance, the overcapitalisation, and the issues relating to the ownership structures of the Korean corporate organisations. Finally, a challenge for the Korean corporate sector including three major changes is proposed at the end of chapter 3.

The Korean big corporate groups, the so-called '*chaebol*', led the remarkable economic growth over the last four decades in Korea. *Chaebols* dominated the national economy under the state's 'stick and carrot' policy. *Chaebols* have unique characteristics compared with other nations' conglomerates. First, they are among the fastest growing business conglomerates in the world, and their economic concentration is substantial in the national economy. Second, they have close relationships with government, so-called 'crony capitalism'. Third, most of them are owned and controlled by founders and their families, with cross-shareholding and cross-debt guaranteeing by their subsidiaries in a group. Fourth, they widely diversified the scope of their businesses in related and unrelated areas except banking. Finally, they are exposed to high financial leverage.

The nature of the *chaebol* problem is focused in economic concentration and corporate governance. On the economic concentration issue, there are two notable points: first, the phenomenon of economic concentration does not occur only in Korea; second, economic concentration is an outcome of *chaebol* problems, not the cause of *chaebol* problems. On the corporate governance issue, the first point to note is that most Korean corporations are controlled by their founders and their families in a pattern of owner-managerialism. Second, the controlling shareholders possess the power to control firms in a group by using a pyramid control system. But this does not happen only in Korea. Third, there is no perfect management disciplinary mechanism to check and monitor managers in corporations. Such a mechanism should consist of an interaction among forces providing market discipline (including the capital market, financial market, product market, and labour market), as well as internal discipline in the form of corporate organisation, board committees and so on. Fourth, the lack of a corporate governance mechanism has induced overcapitalisation.

Ownership structure used to be considered as the most important factor in shaping the corporate governance system of any country. The two aspects of ownership structure are ownership concentration and composition. The degree of ownership concentration in a company determines the distribution of power between its managers and shareholders, or controlling shareholders and outside shareholders. Many Korean corporations, including *chaebols*, have highly concentrated structures of ownership and control. In terms of composition, family ownership in a *chaebol* is usually achieved through controlling shareholdings and cross-shareholdings among subsidiaries.

Finally, for the Korean economy and corporate sector, changes to institutional, managerial, and structural frameworks are suggested to enable stronger competition with their global competitors in the new economic era.

The next chapter describes the data sample, data source, statistics, correlations, variables and model specification to identify the empirical results, which are to be analysed in the following chapters. The variables in the models, which are based on empirical models used in previous studies, are defined and selected as particular empirical proxies for dependent and independent variables in the specific equations. The models consist of 12 equations to estimate the relationship between corporate value and ownership structure, including insider ownership, ownership concentration and other ownership composition variables. The diagnostic tests require that certain assumptions regarding the distribution of input data, functional form, and heteroscedasticity be satisfied. The methods employed to overcome these problems are discussed in detail. The data and models are now appropriate to apply in the regression analysis in the following chapters.

Chapter 5 presents, as a core chapter, the empirical results for hypotheses regarding the relationship between ownership structure and corporate value for the Korean PLCs. As well as considering the results of this study, the relevance of these findings is considered in the context of existing research. It strongly suggested that there is a significant non-monotonous relation between the level of insider ownership and corporate value for the Korean PLCs. Ignoring the endogeneity issue, insider ownership affects corporate value, but not vice versa,

which is generally consistent with Morck et al (1988a), Stulz (1988) and McConnell and Servaes (1990). The level of corporate value declines as insider ownership increases up to 15 per cent. It rises as insider ownership increases up to 35 per cent and then declines again after 35 per cent. The relation between insider ownership and corporate value is significant at an ownership level between 0 per cent and 35 per cent. In the case of Korean PLCs, around 35 per cent of insider ownership might be recommended for higher corporate value, so that around 50 per cent of the average insider ownership of the 30 largest *chaebols* should be reduced to a level of around 35 per cent.

Corporate value is not statistically significant in the insider ownership regression, which is consistent with Murphy (1985), Kole (1994) and Cho (1998). Therefore, the findings also suggest that there is no reversal effect from corporate value to insider ownership for the Korean PLCs. Ownership concentration is not a determinant of corporate value, suggesting that the levels of ownership concentration do not affect significantly firm value for the Korean PLCs, which is consistent with the findings of Demsetz and Lehn (1985). There is no reversal effect of firm value on ownership concentration. The president direct share (LNPDS), the largest shareholders' share (LNLS), and the financial institutions' share (LNFIS) positively affect corporate value, while foreigners' share (LNFS) has a negative relation, suggesting that top management with a smaller share could be irresponsible in management and, consequently, cause the value of the firm to decrease, as argued by Berle and Means (1932). The level of shares held by insiders and management positively affects corporate value, while shares held by outsiders of firms such as foreigners' share have a negative effect on firm value. On the other hand, there are no reciprocal effects between corporate value and the largest shareholders' share, president direct share and financial institutions' share. Foreigners choose to hold many shares when firms perform well, and also prefer to hold shares in larger manufacturing companies rather than smaller finance and information technology companies.

In chapter 6 the comparative analysis of the *chaebol* firms and non-*chaebol* firms suggests that there are significant similarities and differences between the results for the *chaebol* firms and the non-*chaebol* firms with a non-monotonous relation

between the level of insider ownership and corporate value. This is consistent with the findings of Morck et al (1988a) and Cho (1998).

One of the similarities between the results for the two sample groups is that the level of corporate value declines as insider ownership increases up to 15 per cent, and rises as insider ownership increases up to 35 per cent and then declines again after 35 per cent. One of the differences is that the relation between insider ownership and corporate value for the non-*chaebol* firms is much more significant at an ownership level between 0 per cent and 35 per cent than that for the *chaebol* firms. Preferably for the non-*chaebol* firms in Korea, around 35 per cent of insider ownership would be recommended for higher corporate value.

There are conflicting results for the *chaebol* and non-*chaebol* firms in the insider ownership regression results. In the case of the *chaebol* firms, ignoring the endogeneity issue, corporate value does not affect insider ownership. However, firm value affects positively insider ownership in the case of the non-*chaebol* firms. Taken together, these findings and the results from the corporate value regression suggest that insider ownership affects non-monotonously corporate value for the non-*chaebol* firms, but is insignificant for the *chaebol* firms, while corporate value has a reverse effect on insider ownership for the non-*chaebol* firms, but is insignificant for the *chaebol* firms.

Ownership concentration is not a determinant of corporate value, suggesting that the level of ownership concentration does not affect significantly firm value for both the *chaebol* firms and non-*chaebol* firms. This is consistent with that of Demsetz and Lehn (1985). However, a difference between the results for the two sample groups is that the signs of the coefficients of ownership concentration variables are in conflict: negative for the *chaebol* firms, but positive for the non-*chaebol* firms. Higher ownership concentration could affect positively corporate value for the relatively smaller non-*chaebol* firms, and negatively for the relatively larger *chaebol* firms.

The largest shareholders' shares (LNLS) positively affect corporate value for both the *chaebol* and non-*chaebol* firms. One difference is that in the graph of the

relationship between LNMBA and LNLS the slope of the relationship for the non-*chaebol* firms is steeper than that of the *chaebol* firms. Corporate value does not affect significantly the largest shareholders' share for either the *chaebol* or non-*chaebol* firms, suggesting that there is no reverse effect of corporate value on the largest shareholders' share. However, one difference is found in that the signs of the coefficients of the firm value are in conflict for the two sample groups: negative for the *chaebol* firms, positive for the non-*chaebol* firms. Foreigners' shares (LNFS) affect negatively corporate value for both the *chaebol* and non-*chaebol* firms. It is an interesting result that greater shareholding by foreigners may bring about irresponsible management, and then causes firm values to decrease. When firms perform well, foreigners choose to hold many shares in both the *chaebol* and non-*chaebol* firms. Financial institutions' shares (LNFIS) affect positively corporate value for the non-*chaebol* firms, but remain insignificant for the *chaebol* firms. When firms do not perform well, financial institutions also choose to hold many shares in *chaebol* firms, but their shareholding in non-*chaebol* firms remains insignificant.

Concluding remarks

From the major findings in this study, the five hypotheses, which are raised in chapter 1, are tested to answer the main research questions also raised in chapter 1. Table 7.1 shows that the hypotheses 1, 4, and 5 can be adopted, but hypotheses 2 and 3 must be rejected. The results imply that the research has provided an effective empirical examination to address the relation between ownership structure and corporate value for the Korean corporate sector, because there are remarkable and reportable significant relationships in the variations of ownership structure and corporate value. Based on these results, the main research questions are addressed.

The main research questions are as follows.

1. Does the ownership structure of the Korean PLCs affect their corporate performance? If so, how?
2. Are there significant correlations between corporate performance and ownership structure in the Korean corporate sector? If so, in what ways?

Table 7.1 Verification of the hypotheses

Hypotheses	Results
Hypothesis 1	There is a significant non-monotonous relation between the level of insider ownership and corporate value for the Korean PLCs.
Hypothesis 2	Corporate value of the Korean PLCs does not significantly affect their insider ownership.
Hypothesis 3	Ownership concentration is not a determinant of corporate value, suggesting that the levels of ownership concentration do not affect significantly firm value for the Korean PLCs, and there is no reciprocal effect of firm value on ownership concentration.
Hypothesis 4	The president direct share, the largest shareholders' share and the financial institutions' share positively affect corporate value, while foreigners' share has a negative relation. There are no reciprocal effects between corporate value and the largest shareholders' share, president direct share and financial institutions' share. But foreigners choose to hold many shares when firms perform well.
Hypothesis 5	There are significant similarities and differences between the results for the *chaebol* firms and the non-*chaebol* firms with a non-monotonous relation between the level of insider ownership and corporate value. The difference is that the relation between insider ownership and corporate value for the non-*chaebol* firms is much more significant at an ownership level between 0 per cent and 35 per cent than for the *chaebol* firms. For the *chaebol* firms, corporate value does not affect insider ownership. However, firm value affects positively insider ownership for the non-*chaebol* firms. The signs of the coefficients of ownership concentration variables are in conflict: negative for the *chaebol* firms; but positive for the non-*chaebol* firms. Financial institutions' shares (LNFIS) affect positively corporate value for the non-*chaebol* firms, but are insignificant for the *chaebol* firms. When firms do not perform well, financial institutions also choose to hold many shares in the *chaebol* firms, but their holdings in the non-*chaebol* firms is insignificant.

In answer to the first question,

-Yes, the ownership structure of the Korean PLCs affects their corporate performance.

-How? The level of corporate value declines as insider ownership increases up to 15 per cent. It rises as insider ownership increases up to 35 per cent and then declines again after 35 per cent. The relation between insider ownership and corporate value is significant at an ownership level between 0 per cent and 35 per cent, but is insignificant for levels above 35 per cent. In the case of Korean PLCs, around 35 per cent of insider ownership might be recommended for their higher corporate value.

In answer to the second question,

-Yes, there are significant correlations between ownership structure and corporate performance in the Korean corporate sector.

-In what ways? Insider ownership of the Korean PLCs significantly affects corporate performance, but not vice versa. There is no significant correlation between ownership concentration and corporate value. There are significant relations between various ownership composition variables and corporate value.[1]

Corporate reform policy implications

Since the financial crisis in Korea in 1997, economic reform including restructuring the corporate governance system of the Korean corporate sector has been advanced under IMF guidelines and government reform policy. Many commentators, however, are still concerned about the ownership structure of the Korean PLCs. Ownership structure is often asserted to be one of the most important factors influencing the highly indebted financial structure, excessive diversifications, inadequate monitoring and lack of checking as a result of a failure in accounting transparency and monitoring mechanisms. In this regard, the question of whether or not ownership structure of the Korean PLCs still affects their firm value was of main interest to this thesis.

As discussed earlier, it has been suggested that insider ownership of the Korean PLCs non-monotonously affects their corporate performance, but not vice versa. In the case of Korean PLCs, around 35 per cent of insider ownership would be recommended for their higher corporate value. These results reveal that relatively

[1] See chapter 5.

higher insider ownership of the Korean PLCs has negatively affected corporate performance, and consequently influenced the crisis in 1997. The results, however, suggest that the level of insider ownership should remain at the appropriate level. Therefore the current government corporate reform policy, which is focusing on diminishing the insider ownership even the level lower than 35 per cent, needs to be reconsidered in the light of higher performance of the PLCs. This study also suggests that the regulations and advice on appropriate insider ownership levels should be formed and updated.[2]

Those, however, most likely depend on the economic development stages, because, as discussed the empirical findings for the other nations in chapter 5, according to their economic and political environment in each nation. There may be different levels of appropriate insider ownership as in highly developed, low developed, developing, and transitional economies rather than having a fixed level of insider ownership for all economies.

The results also suggest that there are significant similarities and differences between the results for the *chaebol* firms and the non-*chaebol* firms with a non-monotonous relation between the level of insider ownership and corporate value. The difference is that the relation between insider ownership and corporate value for the non-*chaebol* firms is much more significant at an ownership level between 0 per cent and 35 per cent than for the *chaebol* firms. Preferably for the non-*chaebol* firms, around 35 per cent of insider ownership is strongly recommended for their higher corporate value compare to the *chaebol* firms. Higher ownership concentration could affect positively corporate value in the case of the relatively smaller non-*chaebol* firms, while negative for the relatively larger *chaebol* firms. Financial institutions' shares affect positively corporate value in the case of the non-*chaebol* firms, but have an insignificant effect on the *chaebol* firms. When firms do not perform well, financial institutions also choose to hold many shares in *chaebol* firms, while their holding in non-*chaebol* firms is insignificant. These results suggest that financial institutions perhaps take stock redemption for their

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[2] The level of around 50 per cent of the current average insider ownership is formed by top 30 largest *chaebols* under the limitation on the cross-shareholdings up to 25 per cent of their assets imposed after the financial crisis in 1997. The appropriate level of insider ownership should be suggested focused on the improvement of firm performance rather deciding the certain level without any empirical estimations.

loans when *chaebols* do not perform well and cannot afford to redeem. The high proportion of shares of financial institutions in non-*chaebol* firms, however, makes them perform well.

Reviewing these results, there are significantly different aspects between *chaebol* and non-*chaebol* firms. The government, therefore, should differentiate between the corporate reform policies that could be applied respectively to the *chaebol* and non-*chaebol* firms. The current regulation of the categorisation for the 30 largest *chaebols* should be retained in order to improve differential policies for both groups of firms.

Suggestions for further research

This thesis provides an effective analysis of the relationship between ownership structure and corporate value in an emerging market, Korea. Despite the effectiveness of the analysis, some additional analyses are required as part of further research.

First, collecting additional time-series, firm specific panel data would be another useful challenge for the next analysis. Even though this study has examined effectively the issues with a cross-sectional data set, it does not capture the long run economic aspects of factor accumulation and the differential values of corporate performance over the time path. To reflect a changing economic environment and corporate efficiency more realistically, it would also be more appropriate to approach the comparative analysis for the period before and after the crisis.

Second, variations on the variables in the models, such as stock market liquidity and volatility, and more specific ownership variables, such as the relationship with the founders, could provide variability in the explanation of the results. To find more realistic results to reflect actual market environment, including more variables to explain corporate performance and ownership structure in the regressions would be a valuable contribution to the analysis. It would be worthwhile also trying different settings of the model closures assumed.

Finally, an international comparative analysis using other nations' results, such as those for Japan and European nations would provide a broader range of aspects and more sensitive insights into the issues. Since the ownership structure issue is so sensitive and so highly debated these days a further extension of this kind would help to explain the features of particular corporate governance systems in major developed nations in terms of an optimal ownership structure.

Appendix Tables

Table A3.1 National accounts. 1963-1995

	1963	1970	1980	1990	1995
Population (million)	27	32	38	43	45
GNP per capita ($)	100	252	1,589	5,659	10,076
GNP ($billion)	2.3	8	61	242	452
Gross saving rate (%)	8.7	18.0	23.1	36.0	36.2
Gross investment rate (%)	13.5	24.3	32.0	37.1	37.5
Share of GNP (%)					
Agriculture	43.5	26.5	14.9	8.7	6.6
Manufacturing and mining	11.6	22.4	31.0	29.8	27.2
Services	44.9	51.1	54.1	61.5	66.2
Share of employment (%)					
Agriculture	63.1	50.4	34.0	17.5	12.5
Manufacturing and mining	8.7	14.3	22.5	27.6	23.6
Services	35.4	35.3	43.5	54.9	63.9
Unemployment rate (%)	8.2	4.4	5.2	2.4	2.0
Exchange rate (won/$)	130	317	660	716	775
Exports ($billion)	0.09	0.9	17.2	63.1	125
Imports ($billion)	0.50	1.8	21.6	65.1	135
Trade balance ($billion)	-.41	-0.9	-4.3	-2.0	-4.7
Exports/GNP (%)	3.9	14.1	34.0	29.8	41.5
Imports/GNP (%)	16.1	23.8	41.5	30.3	42.0
	1963–69	1970–79	1980-89	1990–95	1963–95
Average annual growth (%)[a]	9.8	9.7	8.3	7.8	8.9
Gross saving rate (%)	11.7	22.2	30.2	35.6	24.8
Gross investment rate (%)	18.9	27.9	30.4	37.0	31.4
Inflation: average annual rate (%)	15.8	15.2	8.4	6.6	11.7
Real effective exchange rate					
1985–86 = 100 (average)	78.9	88.9	93.5	104.5[b]	95.0[c]
Average population growth (%)	2.5	1.8	1.2	0.9	1.6
Average growth of employment (%)	3.5	3.8	2.0	2.5	3.1
Average unemployment rate (%)	6.6	4.0	3.8	2.4	4.2
Average growth of productivity	7.1[d]	2.6	4.2	4.3[b]	4.2[c]
Growth of real wages over productivity	3.8[e]	2.6	4.2	3.3[b]	4.0[c]

[a] Average annual growth rates are arithmetic averages over the period.
[b] 1990–1994; [c] 1964–94; [d] 1964–69; and [e] 1966–69

Sources: NSO 1996; Nam and Kim 1995:178.

Cited from Kwon (1997)

Table A3.2 National accounts, 1996-1999

	1996	1997	1998	1999			
				Q1	Q2	Q3	Annual
GDP Growth (%)	6.8	5.0	-5.8	4.6	9.8	12.3	9.0[1]
Final consumption (%)	7.2	3.2	-8.2	5.0	7.2	8.4	n.a.
Gross fixed capital formation (%)	7.3	-2.2	-21.1	-4.3	4.9	6.9	n.a.
Exports of goods and services (%)	11.2	21.4	13.3	11.9	16.0	22.2	n.a.
Imports of goods and services (%)	14.2	3.2	-22.0	27.4	27.4	32.0	n.a.
Inflation (%)	4.9	4.5	7.5	0.7	0.6	0.7	1.1[2]
Unemployment Rate (%)	2.0	2.6	6.8	8.4	6.6	5.8	6.9[2]
Interest rate (%) (3-yr corp bond)	12.6	24.3	8.3	8.3	8.0	9.6	8.4[2]
Reserve money growth (%)	2.1	-15.0	-7.2	1.0	12.1	16.2	n.a.
MCT growth (%)	21.7	15.3	7.5	5.0	6.4	7.7	n.a.
Government deficit/GDP (%)	+0.3	+0.03	-4.2	-0.2	n.a.	n.a.	-5.2[3]
Current a/c deficit (U$ bill)	-23.0	-8.2	40.6	7.2	6.5	6.6	18.2[2]
Foreign ex. rate (W/US$)	805	951	1399	1198	1192	1194	1182[2]
Foreign reserves (US$ billion)	33.2	20.4	52.0	57.5	62.0	65.5	n.a.
FDI inflow (US$ billion)	3.2	7.0	8.9	2.0	2.5	4.0	15.0[2]
Stock price index	833	655	406	572	769	952	n.a.
Wage rate increase (%)	12.2	5.2	-3.1	8.9	13.6	n.a.	n.a.
Foreign investment in Korean stock (net) (billion won)[4]	3074	424	5723	1786	151	-4645	n.a.

Source: Bank of Korea 1999. *Monthly Bulletin*, September.

[1]Korea Development Institute 1999. (Korea Herald, 22 October 1999)
[2]SERI 1999. *Korean Economic Trends*, 10 July.
[3]Choi, Kwang 1999.
[4]Korea Institute of Finance 1999.

Cited from Kwon (1999)

Table A3.3 Regulations on economic concentration as of 1990

		Content
Market Structure	Suppression of economic concentration	Holding companies are prohibited Restrictions on total investment in subsidiaries Restrictions on cross-debt guarantees Restrictions on voting rights of financial and insurance companies having shares of affiliates
	Restrictions on M&As	Anti-competitive M&As prohibited Unfair M&As are prohibited
Corporate Behavior	Restrictions on exercising market power	Restrictions on unjust price determination and change Restrictions on entry barriers Restrictions on hindering other firms' operations
	Restrictions on collusion	Restrictions on collusive determination of prices and sale conditions Restrictions on regional demarcation and exclusive dealing
	Restrictions on Unfair Transactions	Maintaining resale prices is prohibited Restrictions on unfair international contracts

Source: Korea Economic Research Institute (1995)

Table A3.4 Changes in the shares of insider ownership of the *chaebol* (%)

	1983	1987	1989	1990	1991	1992	1993	1994	1995	1996
Top 30	57.2	56.2	46.2	45.4	46.9	46.1	43.4	42.7	43.3	44.1
Family	17.2	15.8	14.7	13.7	13.9	12.6	10.3	9.7	10.5	10.3
Subsidiaries	40.0	40.4	32.5	31.7	33.0	33.5	33.1	33.0	32.8	33.8
Top 5	-	60.3	49.4	49.6	51.6	51.9	49.0	47.5	48.1	45.2
Family	-	15.6	13.7	13.3	13.2	13.3	11.8	12.5	9.4	8.6
Subsidiaries	-	44.7	35.7	36.3	38.4	38.6	37.2	35.0	38.7	36.6
Hyundai	81.4	79.9	-	60.2	67.8	65.7	57.8	61.3	60.4	56.2
Samsung	59.5	56.5	-	51.4	53.2	58.3	52.9	48.9	49.3	46.7
Daewoo	70.6	56.2	-	49.1	50.4	48.8	46.9	42.4	41.4	40.1
LG	30.2	41.5	-	35.2	38.3	39.7	38.8	37.7	39.7	38.3

Note : The figures for the top 30 and the top 5 *chaebol* are the weighted average of individual *chaebol* (according to the size of their capital base) in the respective grouping.

Source: Korea Fair Trade Commission

Table A3.5 Internal and cross-shareholdings of the 30 largest *chaebols*, 1999 (Unit: Million Won)

(1999.4.1.기준)

기업집단	금 액 (백만원)					소유지분율(%)						
	자본금 (a)	동일인 (b)	특 수 관계인 (c)	소속 회사 (d)	자기 주식 (e)	b/a	c/a	(b+c) /a	d/a	e/a	(d+e) /a	(b+c+ d+e) /a
1현대	12,257,323	138,390	520,497	6,188,225	64,204	1.1	4.2	5.4	50.5	0.5	51.0	56.4
2대우	6,771,964	263,989	116,409	3,219,184	63,226	3.9	1.7	5.6	47.5	0.9	48.5	54.1
3삼성	5,837,986	41,009	73,273	2,287,911	79,209	0.7	1.3	2.0	39.2	1.4	40.5	42.5
4엘지	6,229,708	15,980	212,837	2,992,117	40,357	0.3	3.4	3.7	48.0	0.6	48.7	52.4
5에스케이	2,446,313	103,197	51,135	1,445,306	33,633	4.2	2.1	6.3	59.1	1.4	60.5	66.8
6한진	1,083,307	47,963	131,033	238,415	24,317	4.4	12.1	16.5	22.0	2.2	24.3	40.8
7쌍용	1,063,413	36,914	22,240	469,017	13,196	3.5	2.1	5.6	44.1	1.2	45.3	50.9
8한화	1,004,840	41,208	11,659	271,139	22,858	4.1	1.2	5.3	27.0	2.3	29.3	34.5
9금호	1,147,292	4,010	19,180	530,732	30,721	0.3	1.7	2.0	46.3	2.7	48.9	51.0
10롯데	1,557,685	13,667	76,053	358,486	65	0.9	4.9	5.8	23.0	0.0	23.0	28.8
11동아	483,002	8,482	6,623	241,937	9,099	1.8	1.4	3.1	50.1	1.9	52.0	55.1
12한솔	1,588,839	7,958	27,148	360,761	3,377	0.5	1.7	2.2	22.7	0.2	22.9	25.1
13두산	379,015	3,316	46,659	148,462	18,509	0.9	12.3	13.2	39.2	4.9	44.1	57.2
14대림	548,055	10,690	23,789	158,091	0	2.0	4.3	6.3	28.8	0.0	28.8	35.1
15동국제강	543,425	21,178	44,392	137,423	787	3.9	8.2	12.1	25.3	0.1	25.4	37.5
16동부	606,823	20,171	27,571	334,926	5,390	3.3	4.5	7.9	55.2	0.9	56.1	63.9
17한라	338,242	1,355	54,712	55,899	11,901	0.4	16.2	16.6	16.5	3.5	20.0	36.6
18고합	270,076	4,397	2,474	39,559	20,052	1.6	0.9	2.5	14.6	7.4	22.1	24.6
19효성	174,843	15,060	5,706	43,235	37,987	8.6	3.3	11.9	24.7	21.7	46.5	58.3
20코오롱	404,931	7,002	19,413	122,204	4,491	1.7	4.8	6.5	30.2	1.1	31.3	37.8
21동양	957,492	10,917	27,466	460,174	4,268	1.1	2.9	4.0	48.1	0.4	48.5	52.5
22진로	631,197	35,500	6,633	455,073	0	5.6	1.1	6.7	72.1	0.0	72.1	78.8
23아남	353,185	9,669	21,830	70,226	825	2.7	6.2	8.9	19.9	0.2	20.1	29.0
24해태	120,877	4,792	3,670	54,239	355	4.0	3.0	7.0	44.9	0.3	45.2	52.2
25새한	171,427	10,234	13,373	63,911	0	6.0	7.8	13.8	37.3	0.0	37.3	51.1
26강원산업	132,398	901	13,114	71,027	0	0.7	9.9	10.6	53.6	0.0	53.6	64.2
27대상	116,546	22,865	11,640	50,958	12,293	19.6	10.0	29.6	43.7	10.5	54.3	83.9
28제일제당	436,133	41,977	2,182	189,046	6,173	9.6	0.5	10.1	43.3	1.4	44.8	54.9
29신호	286,567	19,555	1,365	66,643	6,036	6.8	0.5	7.3	23.3	2.1	25.4	32.7
30삼양	178,888	1,525	21,321	75,957	4,218	0.9	11.9	12.8	42.5	2.4	44.8	57.6
합 계	48,121,792	963,871	1,615,397	21,200,283	517,547	2.0	3.4	5.4	44.1	1.1	45.1	50.5

Note: (a)capital stock, (b)founder, (c)family or relatives, (d)affiliated firms, (e)own stock

Source: Korea Fair Trade Commission

Table A3.6 Cross-debt guarantees of the 30 largest *chaebols*, 1999

(Unit: 100million won, %)

(단위 : 억원, %)

구분	1999.4.1					
	기업집단	자기자본 (A)	채무보증금액			채무비율 (B/A)
			제한 (B)	제한제외	합계	
1	현대	192,859	8,713	4,517	13,230	4.5
2	대우	168,707	8,200	15,043	23,243	4.9
3	삼성	181,513	3,771	2,051	5,822	2.1
4	엘지	115,530	1,333	3,229	4,562	1.2
5	에스케이	95,632	858	1,721	2,579	0.9
6	한진	20,628	4,330	48,554	52,884	21.0
7	쌍용	9,357	7,496	6,749	14,245	80.1
8	한화	29,894	6,788	465	7,253	22.7
9	금호	16,079	3,490	6,939	10,429	21.7
10	롯데	47,769	2,363	-	2,363	4.9
11	동아	9,346	7,820	10,819	18,639	83.7
12	한솔	15,783	2,653	62	2,715	16.8
13	두산	15,525	1,607	205	1,812	10.4
14	대림	12,588	3,374	9,538	12,912	26.8
15	동국제강	13,590	1,701	1,223	2,924	12.5
16	동부	14,407	2,551	265	2,816	17.7
17	한라	-4,074	4,590	10,306	14,896	-
18	고합	-7,985	343	-	343	-
19	효성	13,518	664	22	686	4.9
20	코오롱	11,276	3,509	291	3,800	31.1
21	동양	8,763	1,728	28	1,756	19.7
22	진로	-8,549	2,385	330	2,715	-
23	아남	479	3,856	239	4,095	805.0
24	해태	-6,291	2,733	254	2,987	-
25	새한	9,322	2,563	108	2,671	27.5
26	강원산업	5,457	3,142	-	3,142	57.6
27	대상	7,577	451	75	526	6.0
28	제일제당	11,271	1,108	-	1,108	9.8
29	신호	-4,037	2,103	3,149	5,252	-
30	삼양	7,881	1,601	4	1,605	20.3
계	1-5대	754,241	22,875	26,562	49,437	3.0
	6-30대	249,571	74,949	99,626	174,575	30.0
	전 체	1,003,812	97,824	126,188	224,012	9.7

Note: (A) shareholders' equity, (B) cross-debt guarantees

Source: Korea Fair Trade Commission

Table A3.7 The number of businesses of the 30 largest chaebols, 1998-99

(결산기말 기준, 개)

기업집단	1998 (A)	1999 (B)	증 감 (B-A)	비 고
1 현대	37	32	-5	
2 대우	31	31	0	
3 삼성	30	27	-3	
4 엘지	29	31	2	
5 에스케이	28	28	0	
6 한진	25	25	0	
7 쌍용	24	25	1	
8 한화	26	24	-2	
9 금호	21	20	-1	
10 롯데	0	21	21	
11 동아	17	16	-1	
12 한솔	15	15	0	
13 두산	0	24	24	
14 대림	15	13	-2	
15 동국제강	14	12	-2	
17 한라	14	15	1	
18 고합	11	9	-2	
19 효성	19	13	-6	
20 코오롱	22	21	-1	
21 동양	18	17	-1	
22 진로	8	10	2	
23 아남	15	15	0	
24 해태	13	13	0	
25 새한	17	18	1	
26 강원산업	17	18	1	
27 대상	16	14	-2	
28 제일제당	0	12	12	
29 신호	21	20	-1	
30 삼양	0	14	14	
평 균	17.34	19.07	1.73	

Source: Korea Fair Trade Commission

Table A3.8 Diversification of the 30 largest chaebols in the mining and manufacturing sectors (Entropy diversification index)

	1984				1987				1994			
	ET	ER	EB	EB/ET	ET	ER	EB	EB/ET	ET	ER	EB	EB/ET
1-5	1.455	0.616	0.839	0.568	1.463	0.816	0.647	0.421	1.967	0.652	1.315	0.668
6-10	1.263	0.444	0.819	0.578	1.152	0.448	0.704	0.637	1.510	0.470	1.040	0.688
11-15	0.981	0.325	0.656	0.727	1.196	0.329	0.867	0.759	1.683	0.588	1.095	0.650
16-20	0.825	0.330	0.495	0.710	0.945	0.432	0.513	0.578	1.413	0.703	0.727	0.514
21-25	0.836	0.231	0.605	0.636	0.896	0.225	0.671	0.801	1.268	0.549	0.718	0.566
26-30	0.486	0.105	0.381	0.715	0.867	0.183	0.684	0.812	1.134	0.510	0.624	0.550
Avg.	0.974	0.342	0.632	0.653	1.087	0.406	0.681	0.668	1.498	0.579	0.919	0.613

Notes : ET=Total diversification entropy index.
ER=Related diversification entropy index.
EB=Unrelated diversification entropy index.
$ET=EB+\Sigma S_{ij}ER$; $ER=\Sigma S_{ij}\log S_{ij}$; $EB=\Sigma S_i \log S_j$ (i=1, 2, …., n; KSIC two-digit industry; j=1, 2, …. , m; KSIC three-digit industry). S_i denotes the share of industry i in a *chaebol*'s total sales; S_j denotes the share of sub-industry j in a *chaebol*'s total sales; S_{ij} denotes the share of sub-industry j in a *chaebol*'s total sales in industry i.

Source: Lee and Lee (1990, p39)

Table A3.9 Diversification in chaebols and ratio of listed firms to total affiliates

Name	Rank	Total Diversification	Unrelated Diversification	Listed (A)	Affiliates (B)	Ratio (A/B)
Hyundai	1	43	32	21	57	37%
Samsung	2	41	27	13	80	16%
LG	3	23	16	11	49	22%
Daewoo	4	23	17	9	30	30%
SK	5	10	9	6	46	13%
Ssangyong	6	21	18	10	25	40%
Hanjin	7	21	16	9	24	38%
Kia	8	8	8	4	28	14%
Hanwha	9	21	16	7	31	23%
Lotte	10	9	6	4	30	13%
Kumho	11	6	6	3	26	12%
Halla	12	8	8	4	18	22%
Dong Ah	13	7	6	4	19	21%
Doo San	14	19	14	8	25	32%
Daelim	15	9	9	5	21	24%
Hansol	16	11	10	6	23	26%
Hyosung	17	4	4	2	18	11%
Dong Kuk Steel Mill	18	10	7	5	17	29%
Jinro	19	9	9	4	24	17%
Kolon	20	6	4	4	24	17%
Kohap	21	7	7	2	13	15%
Dongbu	22	18	14	6	34	18%
Haitai	23	7	7	3	15	20%
Hanil	24	1	1	1	7	14%
Keo Pyung	25	9	9	5	22	23%
Miwon (Daesang)	26	8	8	4	25	16%
Shinho	27	9	9	6	25	24%
Kang Won Ind.	28	2	2	2	12	17%
Saehan	29	4	3	2	11	18%
Dong Yang	30	4	4	4	24	17%
Cheil Jedang	31	5	2	1	8	13%
Shinsegae	32	1	1	1	8	13%
Oriental Chemical ind.	33	6	4	3	12	25%
Woosung	34	2	2	2	2	100%
Byuck San	35	8	8	4	11	36%
Shin Won	36	15	9	4	10	40%
Tongil	37	8	7	5	11	45%
Taihan Electric Wire	38	1	1	1	4	25%

continued

Name	Rank	Total Diversification	Unrelated Diversification	Listed (A)	Affiliates (B)	Ratio (A/B)
Tongkook	39	4	4	2	9	22%
Chong Gu	40	1	1	1	7	14%
Keumkang	41	3	2	2	4	50%
Sam Yang	42	1	1	1	7	14%
Hankook Tire Mfg.	43	1	1	1	3	33%
Pum Yang	44	1	1	1	7	14%
Tae Kwang ind.	45	5	4	2	5	40%
Dainong	46	4	4	2	3	67%
Yong Poong	47	5	5	3	14	21%
Kukdong	48	3	2	1	4	25%
Sungshin Cement Mfg.	49	4	3	1	4	25%
Sam Whan	50	4	4	3	4	75%
Average	1-20	15.5	12.1	7.0	31.8	22.6%
	1-50	9.2	7.4	4.3	18.8	22.9%

Note : The top 30 *chaebol* are ranked according to the Korea Fair Trade Commission and the rest according to a database from Korea Investors Services, Inc.

Source: Korea Fair Trade Commission, Korea Investors Services, Inc.

Table A3.10 The number of subsidiaries of the 30 largest chaebols

Rank	Group	87	88	89	90	91	92	93	94	95	96	97	98	99.4	99.12
1	Hyundai	32	34	37	39	42	43	45	48	48	46	57	62	62	40
2	Daewoo	29	28	28	27	24	22	22	24	22	25	30	37	34	20
3	Samsung	35	37	42	45	48	52	55	50	55	55	80	61	49	44
4	LG	57	62	59	58	62	58	54	53	50	48	49	52	48	37
5	SK	16	18	20	24	26	31	32	33	32	32	46	45	41	36
6	Hanjin	13	16	16	18	22	23	24	21	23	24	24	25	21	19
7	Ssangyong	22	21	21	21	22	22	22	23	22	23	25	22	23	21
8	Hanwha	21	23	26	27	27	27	27	29	29	31	31	31	21	21
9	KeumHo	19	19	12	18	22	25	24	22	14	27	26	32	29	20
10	Lotte	31	32	32	31	32	32	32	30	29	28	30	28	28	28
11	Donga	16	16	16	16	16	16	13	14	14	16	19	22	15	18
12	Hansol										19	23	19	19	19

continued

Rank	Group	87	88	89	90	91	92	93	94	95	96	97	98	99.4	99.12
13	Doosan	21	22	21	23	23	24	25	24	27	26	25	23	14	14
14	Daelim	14	13	13	13	14	13	12	17	17	18	21	21	17	14
15	Dongguk	13	13	13	13	14	14	14	16	16	16	17	17	16	14
16	DongBu	12	13	13	13	11	11	12	13	13	24	34	34	32	22
17	Halla	5	5	6	7	9	10	10	12	15	17	18	18	17	15
18	Kohap	5	5	7	7	7	7	7	8	10	11	13	13	8	7
19	Hyosung	15	15	13	14	14	14	14	14	15	16	18	21	17	15
20	Kolon	17	18	16	19	21	21	21	19	20	19	24	25	19	18
21	Dongyang			7	9	11	14	16	16	19	22	24	23	21	23
22	Jinro				23	20	20	19	17	12	14	24	25	17	17
23	Anam			12	9	9	9					21	15	15	14
24	HaeTae	13	12	10	9	9	10	10	9	13	14	15	15	15	14
25	Sachan												16	15	14
26	Kangwon		9	14	14	14	14						27	13	6
27	DaeSang	14	15	19	20	20	22	24	22	14		25	20	14	15
28	Jeiljedang													15	16
29	Shinho											25	28	21	16
30	Samyang			7	6	6	7							10	10
	Total													686	589

Source: Korea Fair Trade Commission

Table A3.11 Major activities of the top 10 chaebols, ranked by sales.1983

Sales Rank	Name	Number of Member Firms			Major Manufacturing Activities	Major Non-Manufacturing Activities
		Total	Manu-facturing	Non-manu-facturing		
1.	Hyundai	32	18	14	Shipbuilding and repair, motor vehicles, steel, machinery	Construction, commerce and trade, transport and storage, insurance
2.	Samsung	29	14	15	Electronics, sugar refining, textile weaving, shipbuilding and repair	Commerce and trade, insurance, construction, broadcasting
3.	Lucky/Goldstar	24	15	9	Petroleum refining, electronics, chemicals, non-ferrous metals	Commerce and trade, construction finance, insurance
4.	Sunkyung	14	7	7	Petroleum refining, textile fibers, office equipment	Commerce and trade, construction, transport and storage
5.	Daewoo	24	15	9	Shipbuilding and repair, motor vehicles, industrial machinery, electrical appliances	Commerce and trade, finance, transport and storage
6.	Ssangyong	14	7	7	Petroleum refining, cement, paper	Commerce and Trade, construction, transport and storage, insurance
7.	Kukje	18	8	10	Steel, agricultural machinery, chemicals, paper	Commerce and trade, construction, insurance, transport and storage
8.	Hanguk Hwayak	18	9	9	Petroleum refining, chemicals, dairy products	Commerce and trade, construction, insurance
9.	Hanjin	12	1	11	Cement	Transport and storage, construction, finance, insurance
10.	Hyosung	20	16	4	Textile fibers, rubber tires and tubes, electrical machinery, leather	Commerce and trade, construction

Source: Zeile (1996)

Table A3.12 Change in Samsung subsidiaries

Industry	1938–59	1960–68	1969–75	1976–80	1981–93
Until 1968					
Trading	S. General Store (1938)* S. Tading Co. (1951) Keunyoung (1958)				
Food and beverage	Chosun Brewery (1939)* Chosun Yeast (1948)* Cheil Sugar Refinery (1953) Pungkuk Liquor (1953)* Taehan Sugar (1955)* Hyosung Trading (1957)* Tongyang Sugar (1957)*	Cheil Sugar Sale (1969)* Sunil Dextrose (1972)*	Donglip Industry (1978)*	Hankuk Coking (1982) Cheil Frozen Food (1987)	
Textiles	Cheil Wool (1954) Tongil Textile (1958)* Cheil Costume (1958)*	Hanil Nilon (1963)* Samyoung Inc. (1968)*	Cheil Synthetics (1972) Samri Textile (1973)*		Hicreation (1988)
Finance and insurance	Heungup Bank (1957)* Chunil Securities (1957)*	Dongbang Life Insurance (1963) Dongnam Securities (1963)*			S. Winners Card (1988) Dongsung Investment Consulting (1988)
	Commercial Bank (1958)* Anguk Fire Insurance (1958) Choheung Bank (1959)*	Dongyang Fire & Marine Insurance (1963)*			
Distribution and advertisement		Shinsegae Dept. Store (1963)	Shinsegae Store (1974) Cheil Communications (1973)		Cheil Bozel (1989) Shinsegae Taejun Station Store (1990)
Other services		Joon-Ang Development Co. (1963) Dongyang Broadcast (1963)* Joong-Ang TV Broadcast (1963)* Joong-Ang Daily News (1965) Seoul FM Broadcast (1966)* Korea Hungjin (1966)	Hotel Shilla (1973)	Kyungju Hotel Shilla (1977) Yunpo Leisure Development (1979)	S. Lions (1982) Hankuk Safety System (1981) Chosun Hotel (1983) Dongbang Building Maintenance (1988) Daekyung Building (1989) S. Economic Research Institute (1986)
Other manufacturing	Samchuck Cement (1956)* Honam Fertilizer (1958)* Hankook Tier (1958)*	Ulsan Fertilizer (1961)* Taehan Oil (1963)* Hankook Fertilizer (1964)* Junju Paper (1965)			
From 1969 to present					
Electric and electronics			S. Electronics (1969) S. Sanyo Electric (1969)	Joong-Ang SVP (1979)* S. GTE Communication (1977)*	SS Watch (1983) SS H.-P. (1984)

continued

Industry	1958–59	1960–68	1969–75	1976–80	1981–93
From 1969 to present			S. Display Devices (1970) S. Electric Parts (1973) Hankuk Computer (1971) Electro-Mechanics (1973) S. Corning (1973)	S. Semi-conductor (1977)* Hankuk-Electro Communication (1980)	SS Medical Systems (1984) SS Data Systems (1985) Hankuk Shinyets Silicon (1986) SS Emerson Electrics (1988) Kwangju Electronics (1989) Samtech (1990)
Heavy industry			S. Heavy Industry (1974)	S. Precision (1977) S. Shipbuilding (1977) S. Aerospace (1977) Taisung Heavy Industries (1977)*	SS United Aerospace (1985) SS Clark (1987) SS Kloekner (1989)
Petrochemicals			S. Petrochemicals (1974)		Taehan Precision Chemicals (1988) SS General Chemicals (1988) Cheil Sibagaigi (1988) BP-Chemicals (1989)
Construction			Joong-Ang Engineering (1975)	Korea Engineering (1978) S. Engineering & Construction (1977)	

Notes: S. represents Samsung. Firms marked * are now defunct.
Sources: Samsung Economic Institution (1986); Kim (1993).

Table A3.13 Capital structure of firms in selected countries, 1980-1991

Countries	Debt ratio	Long-term debt to total equity	Short-term debt to total equity	Depreciation to total assets	Dividend to total assets	Earnings to total assets
Australia	1.248	0.563	0.653	0.033	0.025	0.064
Austria	2.696	1.121	1.495	0.051	0.017	0.075
Belgium	2.023	0.764	1.259	0.039	0.022	0.092
Brazil	0.560	0.139	0.421	-	0.014	0.057
Canada	1.600	0.990	0.539	0.045	0.007	0.064
Finland	4.920	3.094	1.856	0.042	0.014	0.077
France	3.613	1.417	2.108	0.043	0.013	0.094
Germany	2.732	1.479	1.188	0.070	0.057	0.087
Hong Kong	1.322	0.309	0.967	0.017	0.019	0.121
India	2.700	0.763	1.937	0.038	0.014	0.132
Italy	3.068	1.114	1.954	0.041	0.070	0.080
Japan	3.688	0.938	2.726	0.026	0.007	0.067
Jordan	1.181	0.266	0.915	-	0.033	0.073
Korea	3.662	1.057	2.390	0.053	0.008	0.100
Malaysia	0.935	0.284	0.639	0.021	0.026	0.087
Mexico	0.817	0.375	0.442	-	-	0.076
Netherlands	2.156	0.710	1.297	0.043	0.020	0.094
New Zealand	1.527	0.752	0.776	0.030	0.025	0.106
Norway	5.375	3.495	1.880	0.049	0.009	0.092
Pakistan	2.953	0.595	2.358	0.038	0.028	0.115
Singapore	1.232	0.491	0.718	0.022	0.018	0.077
South Africa	1.115	0.597	0.518	0.013	0.062	0.206
Spain	2.746	1.086	1.649	0.040	0.016	0.095
Sweden	5.552	2.879	2.321	0.036	0.011	0.100
Switzerland	1.750	0.878	0.872	0.043	0.016	0.073
Thailand	2.215	0.518	1.769	0.030	0.029	0.129
Turkey	1.996	1.511	1.511	-	0.068	0.239
UK	1.480	1.065	1.065	0.032	0.025	0.025
USA	1.791	1.054	0.679	0.045	0.016	0.016
Zimbabwe	0.801	0.187	0.615	0.031	0.028	0.028

Source: Calculated from the International Finance Corporation's Corporate Finance Data by Demigruc-Kunt and Maksimovic (1996, p354)

Table A3.14 Capital shortage in Korea, Japan, and Taiwan (1960-73) (Unit: Billions of Korean Won, billions of Japanese Yen, and millions of Taiwanese New Taiwan dollar)

Year	Korea			Japan			Taiwan		
	GDI (A)	GDS (B)	B/A (%)	GDI (A)	GDS (B)	B/A (%)	GDI (A)	GDS (B)	B/A (%)
1960	26.8	3.5	13.1	5,233.0	5,294.0	101.2	12.6	7.9	62.7
1965	225.5	122.5	54.3	10,543.0	10,910.0	103.5	26.1	22.1	84.7
1970	704.7	423.2	60.1	28,055.0	28,839.0	102.8	57.4	56.9	99.1
1971	805.4	458.2	56.9	28,718.0	30,813.0	107.3	65.2	71.6	109.8
1972	805.5	577.3	71.7	32,712.0	34,581.0	105.7	72.2	92.1	127.6
1973	1,292.3	1,089.7	84.3	44,582.0	45,099.0	101.2	90.0	86.9	96.6
1960-1973	-	-	63.9	-	-	102.6	-	-	98.7

Notes : GDI=Gross domestic investments; GDS=Gross national savings

Source: World Bank, World Trade (1986)

Table A3.15 Comparative analysis of institutional contexts

Institutional context	U.S.A.	Japan	Korea	Implications for Korea
Financial Market	Stock market-centered (equity focused)	Bank-centered (debt focused)	Inefficiency of stock market and low autonomy of banks	• Inefficiency of valuation in markets • High cost for raising capital • Requirement of internal capital market
Labor Market	Many professional institutes and business schools (certified skills enhance mobility)	• Firm-specific training, learning, and development • Lack of professional schools and institutes	• Lack of professional schools and institutes • Low development of manager market	• Internal labor market • Firm-specific training and development • Low development of management skills
Product Market	Efficient information diffusion	Efficient information diffusion (yet, less developed than USA)	• Less efficient information diffusion • Low recognition of innovations	Necessity of common brand power (business group's total image effect)
Government Regulations	• Low • Relatively free of corruption	• Moderate • Relatively free of corruption	• High • Corruption is common	Policy environment causing high transaction costs
Contracts enforcement	Predictable	Predictable	Relatively unpredictable	• Low trust is norm • Lack of mediation when contracts are violated

Source: adapted from Khanna and Palepu (1997, p44)

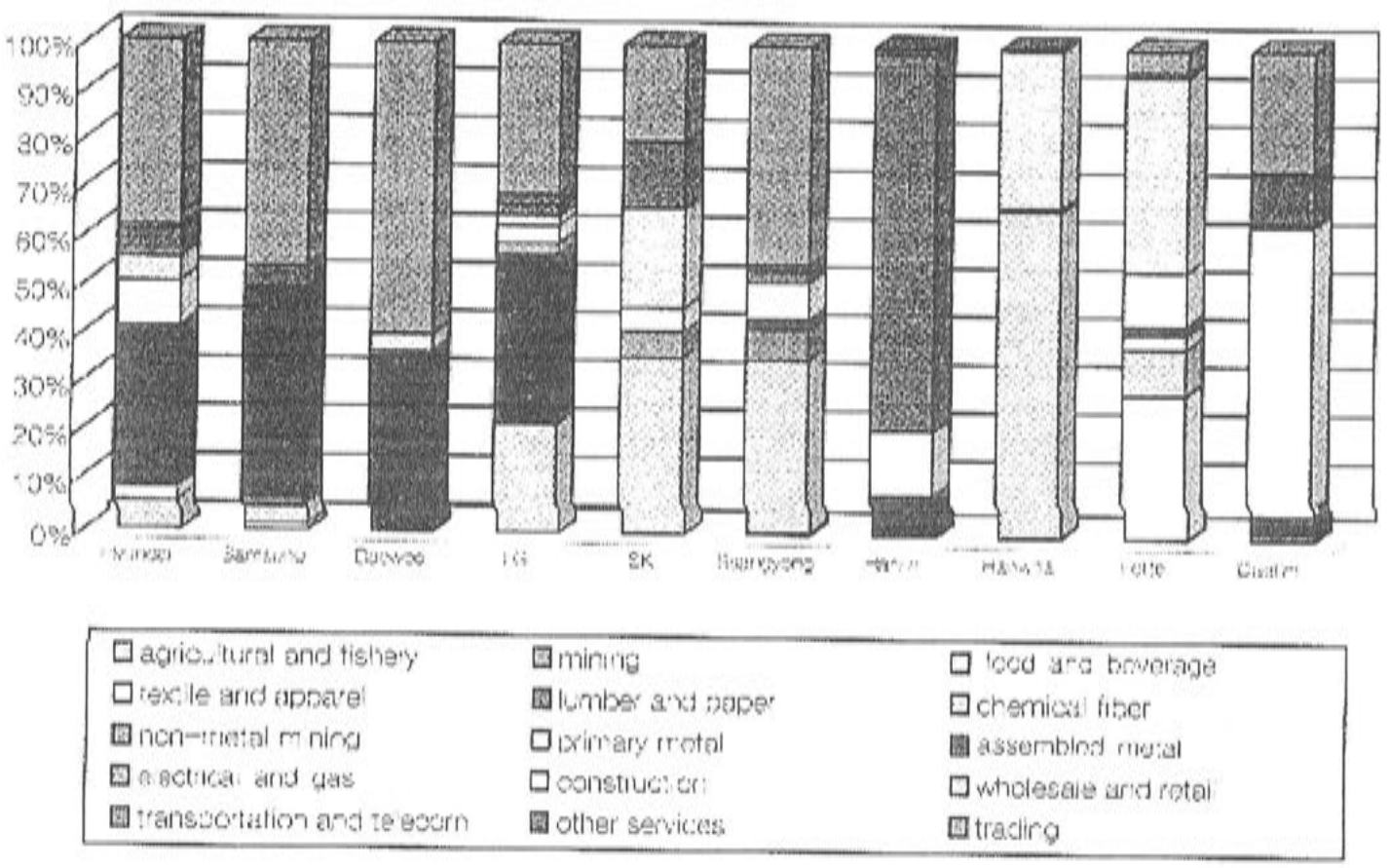
Table A3.16 A comparison of corporate governance systems of the U.S., Japan, and Korea

	U.S.	Japan	S. Korea
Power of the Board	Minor	Very Weak	Very Weak
Board Members from Outside of the Company (Independence)	Many (Insufficient)	Almost Non-existent (Little)	Almost Non-existent (Little)
Participation of Banks on the Board	Small	Average	Small
Salary Level of Managers (Incentive)	Large (High)	Small (Low)	Small (Low)
Monitoring Function of Banks	Weak	Strong	Weak
Primary Method of Financing	Securities Issuing	Bank Loans	Bank Loans
Type of Ownership (Primary Shareholders)	Dispersed (Individuals/ Institutional Investors)	Concentrated (Banks/Group Firms)	Concentrated (Family/Group Firms)
Capital Market	Very Fluid	A Little Fluid	A Little Fluid
Banking System	Dispersed Transactions	Main Bank System	Main Bank System
Role of Small Shareholders	Weak	Weak	Weak
Function of the Corporate Control Market	Strong	Almost Non-existent	Almost Non-existent
Transparency in Management	Transparent	Semi-Transparent	Semi-Transparent
The Separation of Ownership from Management	Perfect Separation	Separation	Incomplete Separation
The Main Characteristic of Corporate Governance	Market Mechanism	*Keiretsu* Relationship /Unofficial Practices	Strong Power of Owner-Manager

Source: Korea Economic Research Institute, 1999.

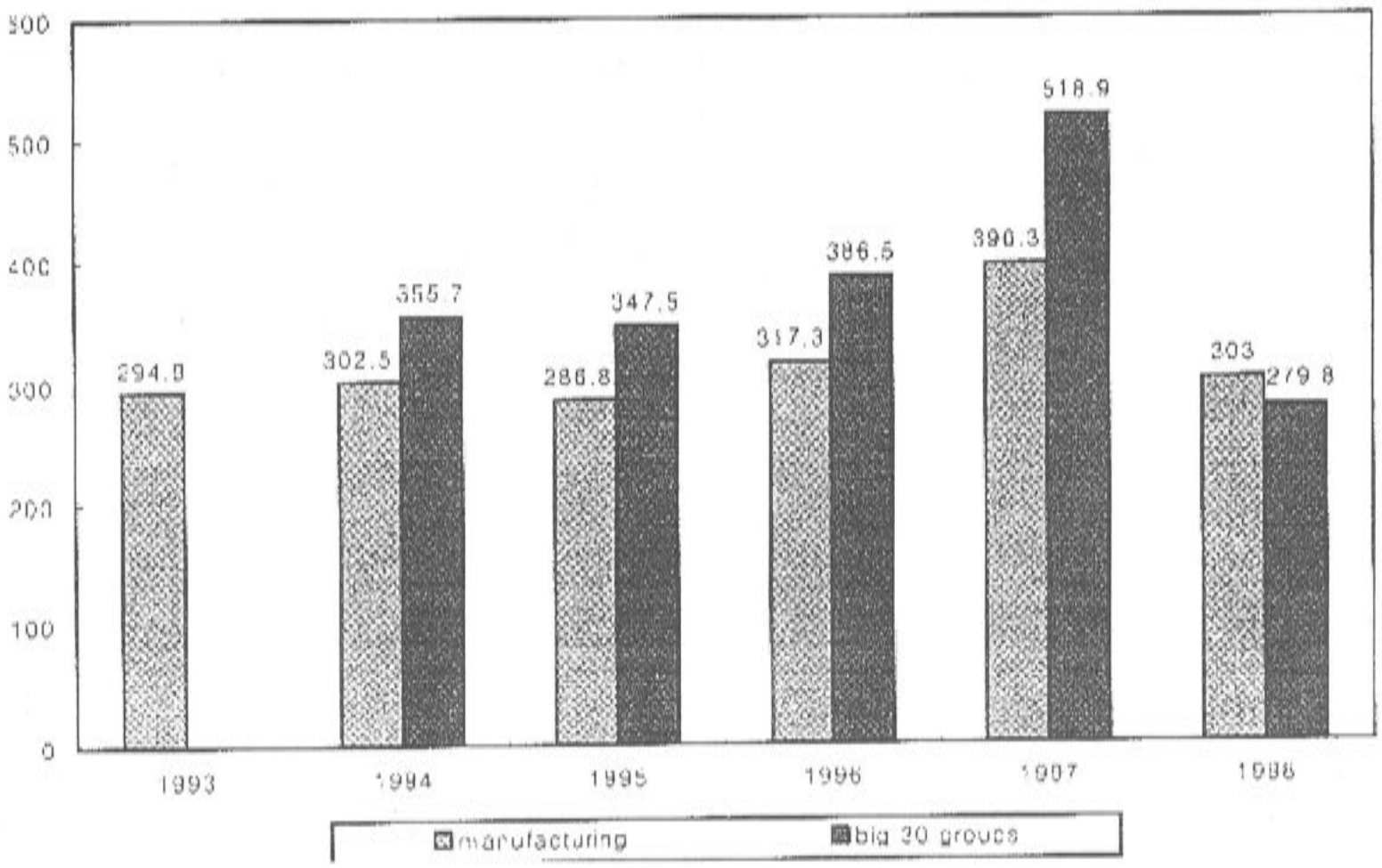
Appendix Figures

Figure A3.1 Market shares of the big 10 *chaebols* in selected industries



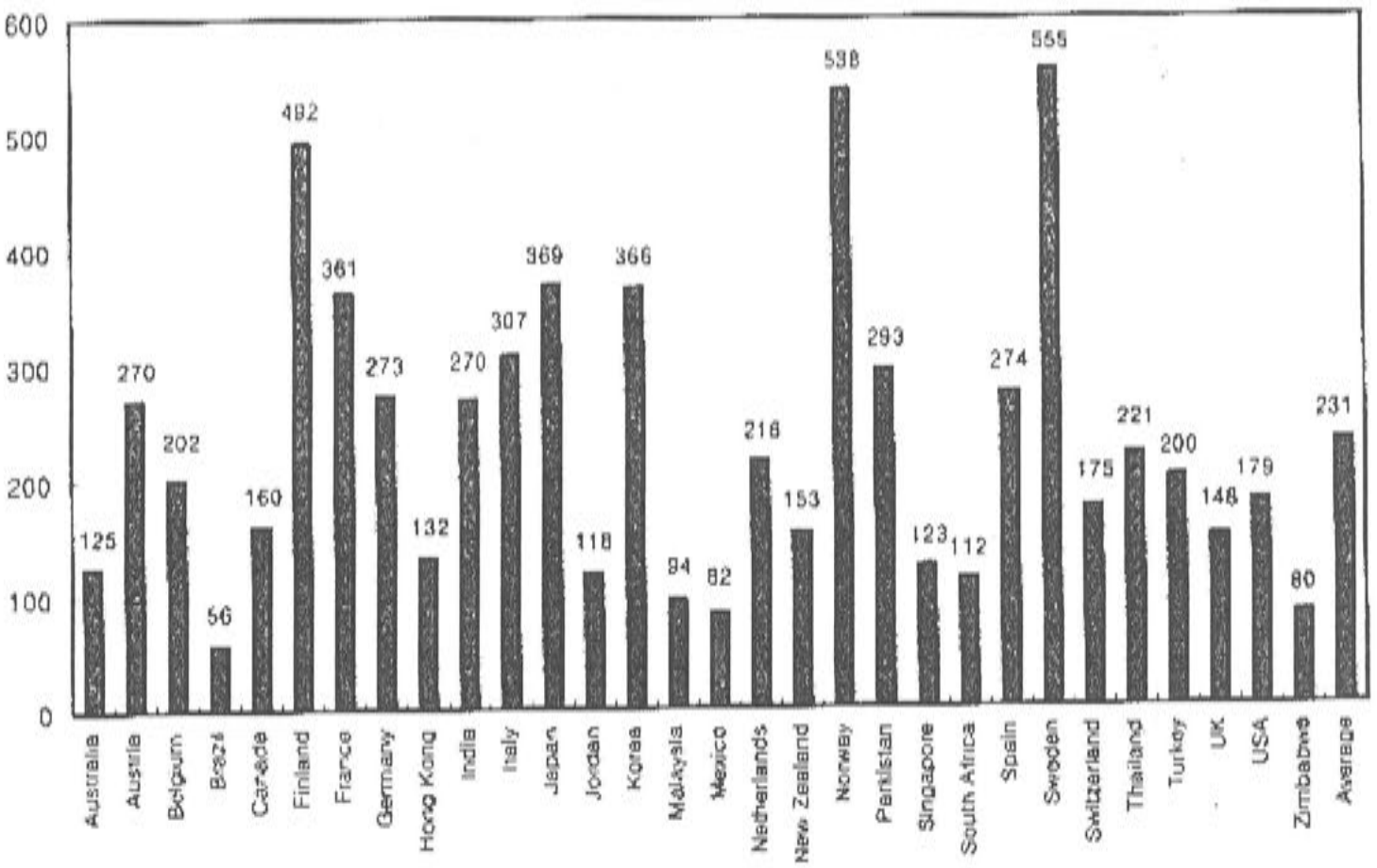
Source: Korea Fair Trade Commission

Figure A3.2 Debt-Equity ratio of the largest 30 *chaebols* and manufacturing firms



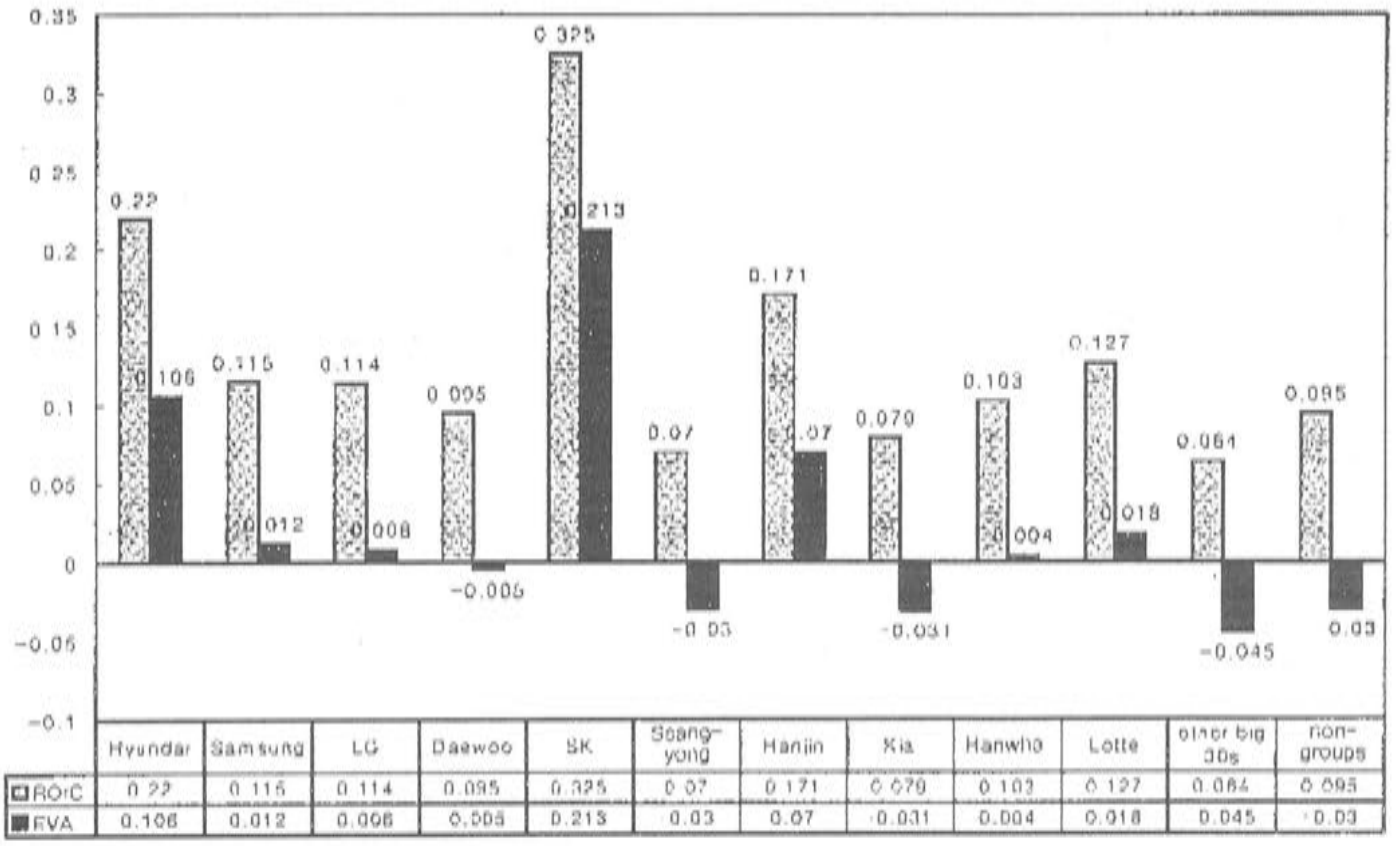
Source: Korea Fair Trade Commission.

Figure A3.3 Debt-Equity ratio by country



Source: International Finance Corporation's Corporate Finance Data by Demigruc-Kunt and Maksimovic (1996).

Figure A3.4 Economic value-added of the largest 30 *chaebols* and non-*chaebol* firms



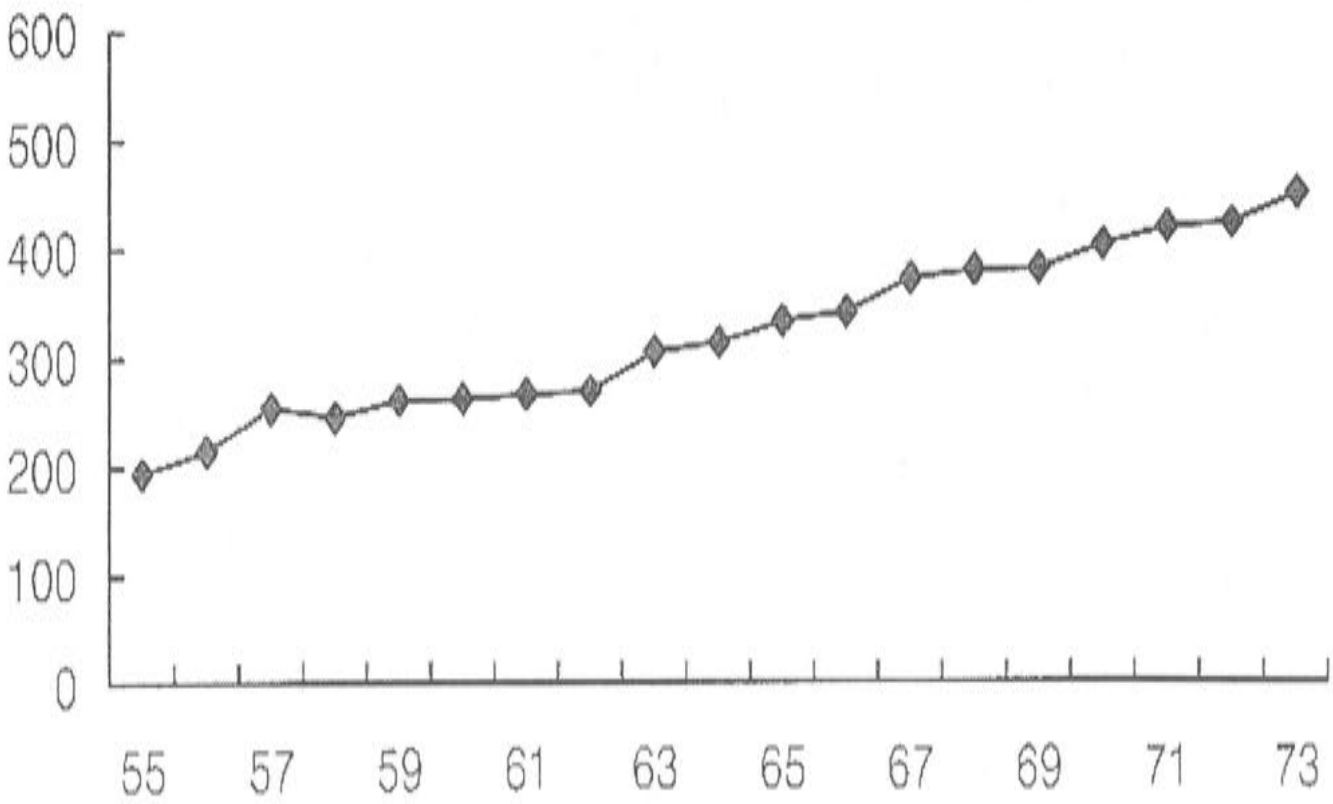
	Hyundai	Samsung	LG	Daewoo	SK	Ssang-yong	Hanjin	Kia	Hanwha	Lotte	other big 30s	non-groups
ROIC	0.22	0.115	0.114	0.095	0.325	0.07	0.171	0.079	0.103	0.127	0.064	0.095
EVA	0.106	0.012	0.008	-0.005	0.213	-0.03	0.07	-0.031	0.004	0.018	-0.045	-0.03

Source: Korea Stock Exchange, 1997.

Figure A3.5 Debt ratio in the manufacturing industry in Korea

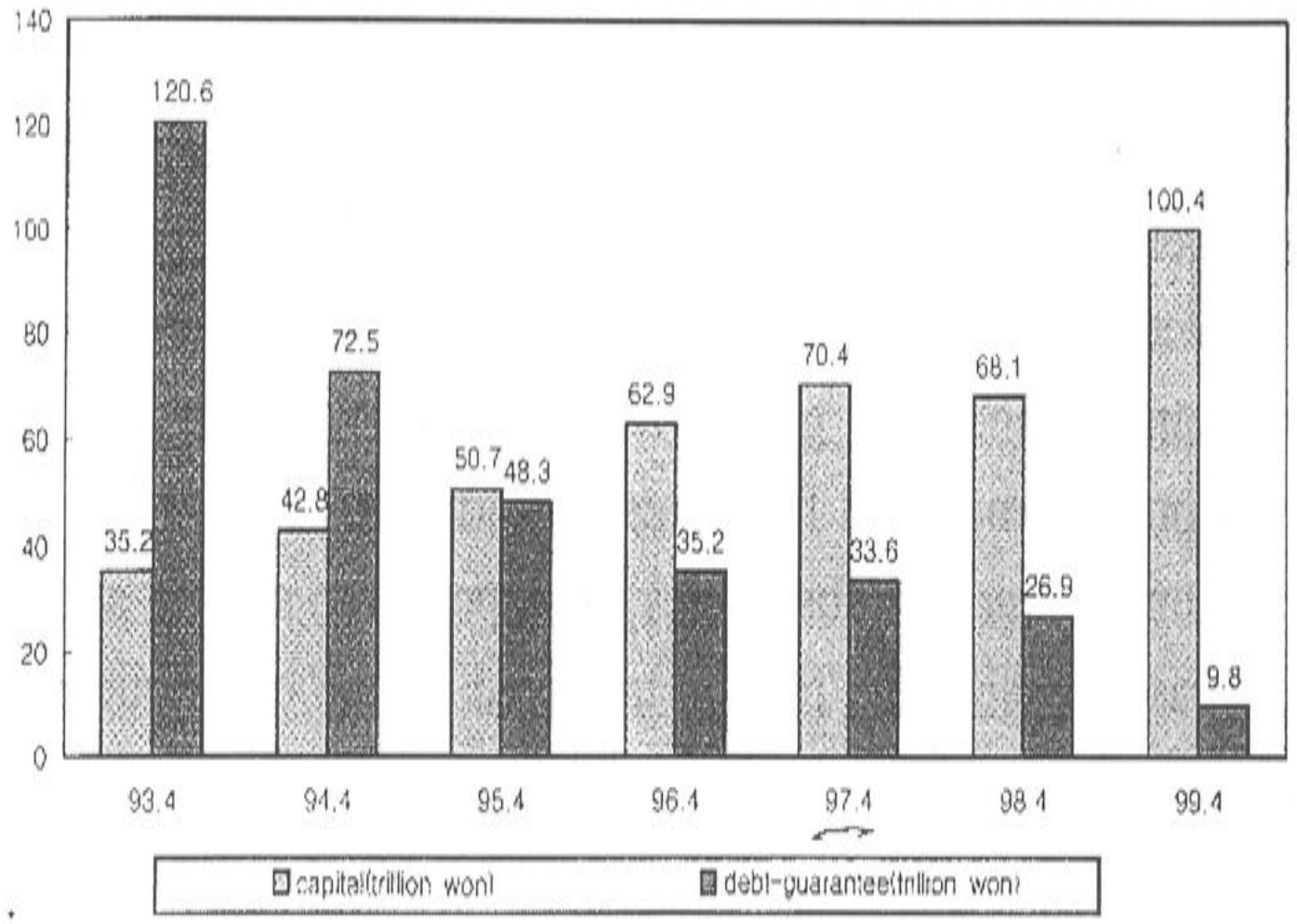
Source: Lavoie (1995).

Figure A3.6 Debt ratio of Japanese firms (1955-73)



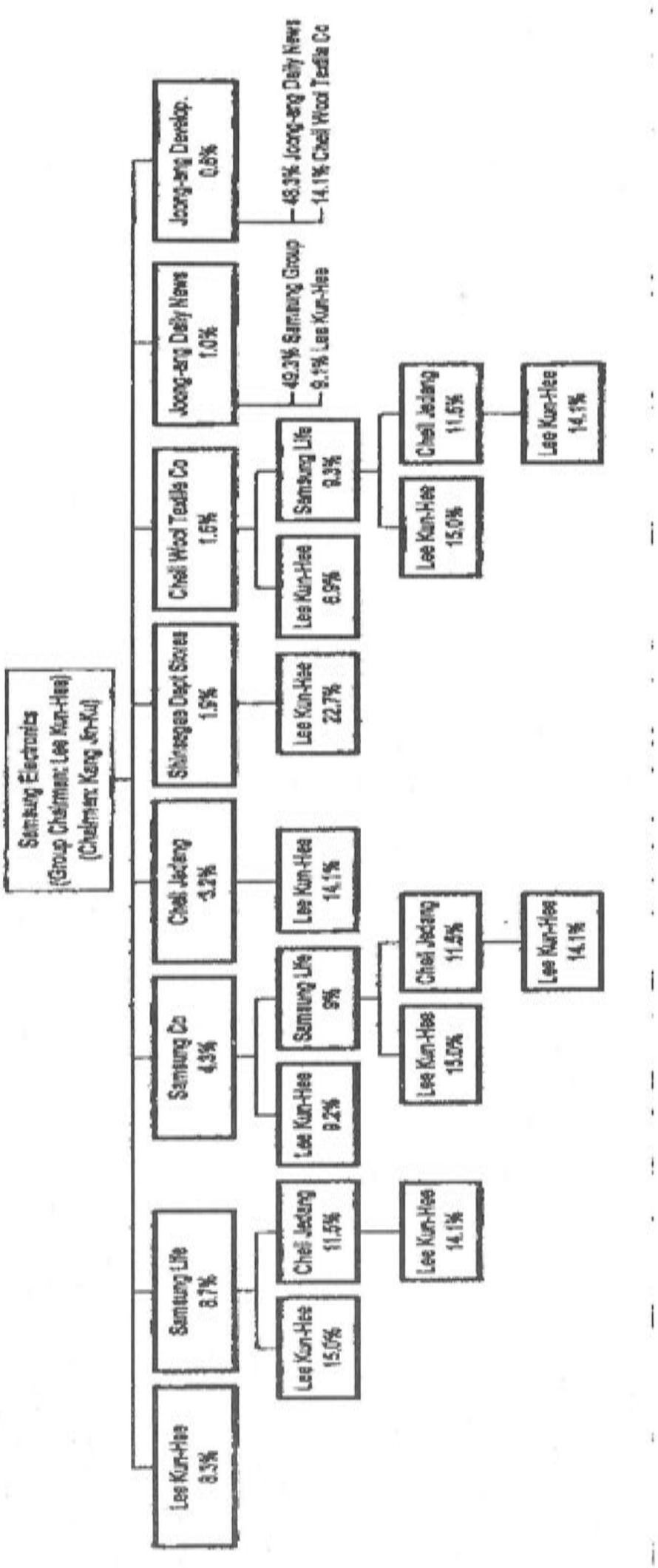
Source: Lavoie (1995).

Figure A3.7 Change in debt-guarantees of the 30 largest *chaebols*



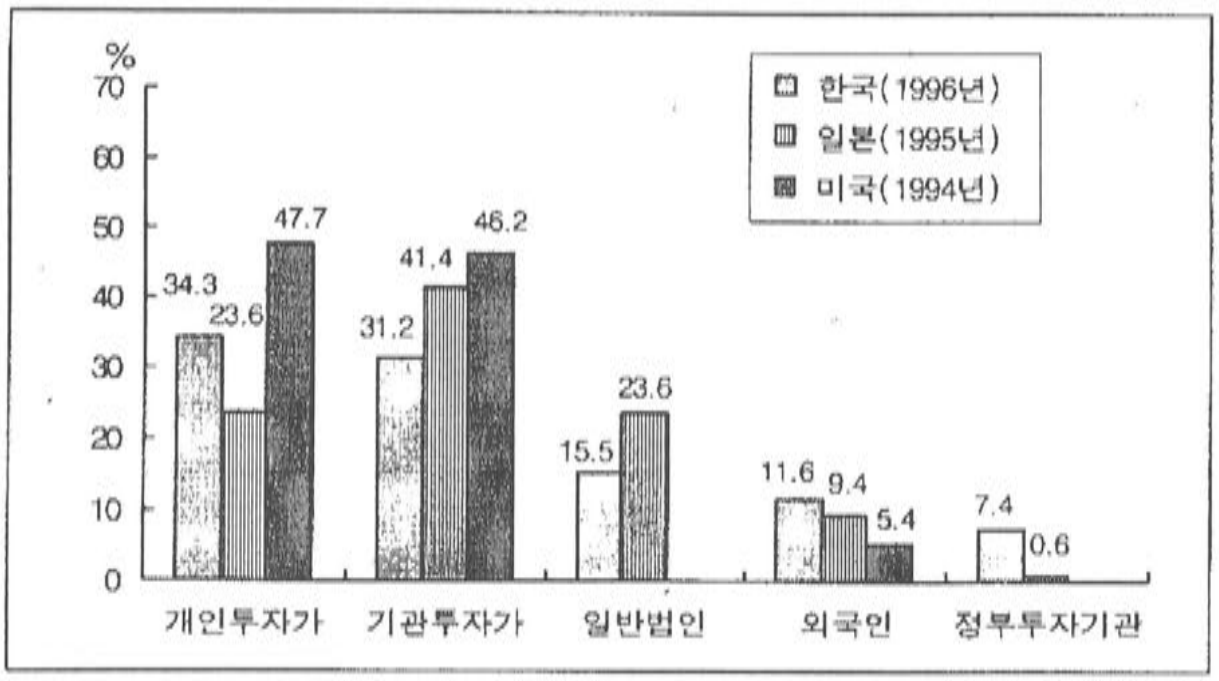
Source: Korea Fair Trade Commission.

Figure A3.8 Ownership structure of Samsung Electronics



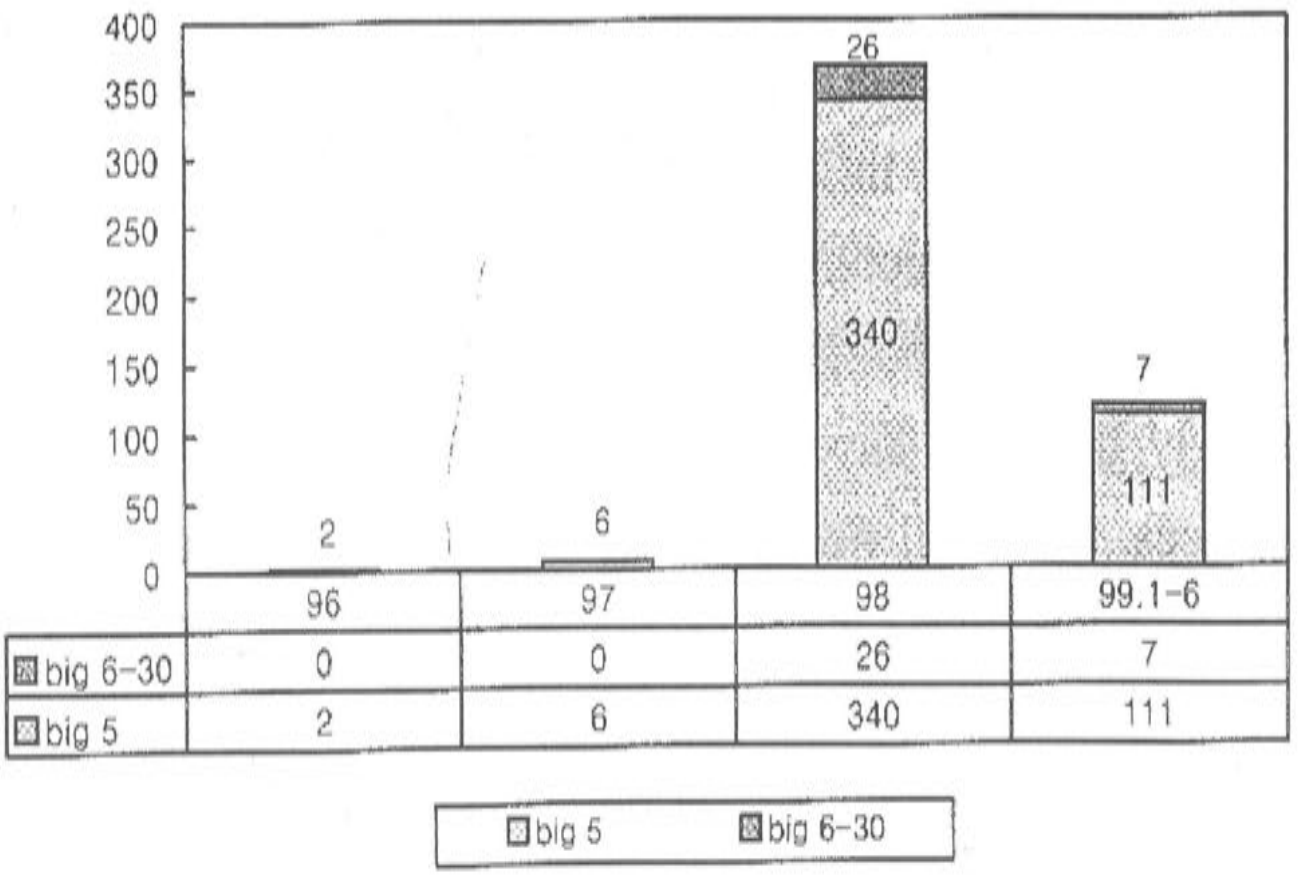
Source: La Porta, Lopez-De-Silanes, and Shleifer (1999)

Figure A3.9 Comparison of the ownership composition of the listed firms



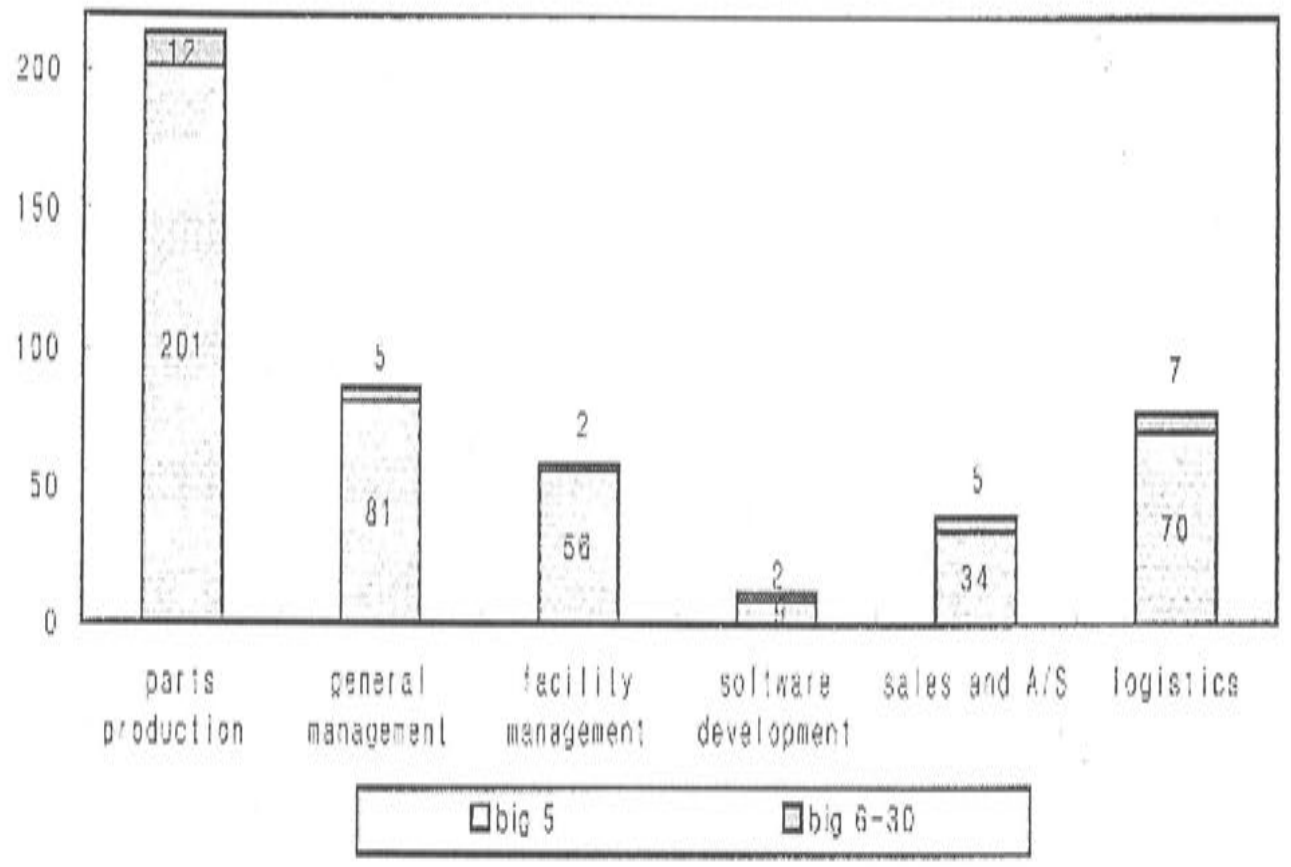
Note: The bars in each group of bars indicate respectively Korea, Japan, and the U.S. from the left. The groups of bars indicate respectively the shares by individual investors, the shares by institutional investors, by commercial firms, by foreigners, and by government from the left.
Source: Hwang (1998).

Figure A3.10 The number of spin-offs from the 30 largest *chaebols*



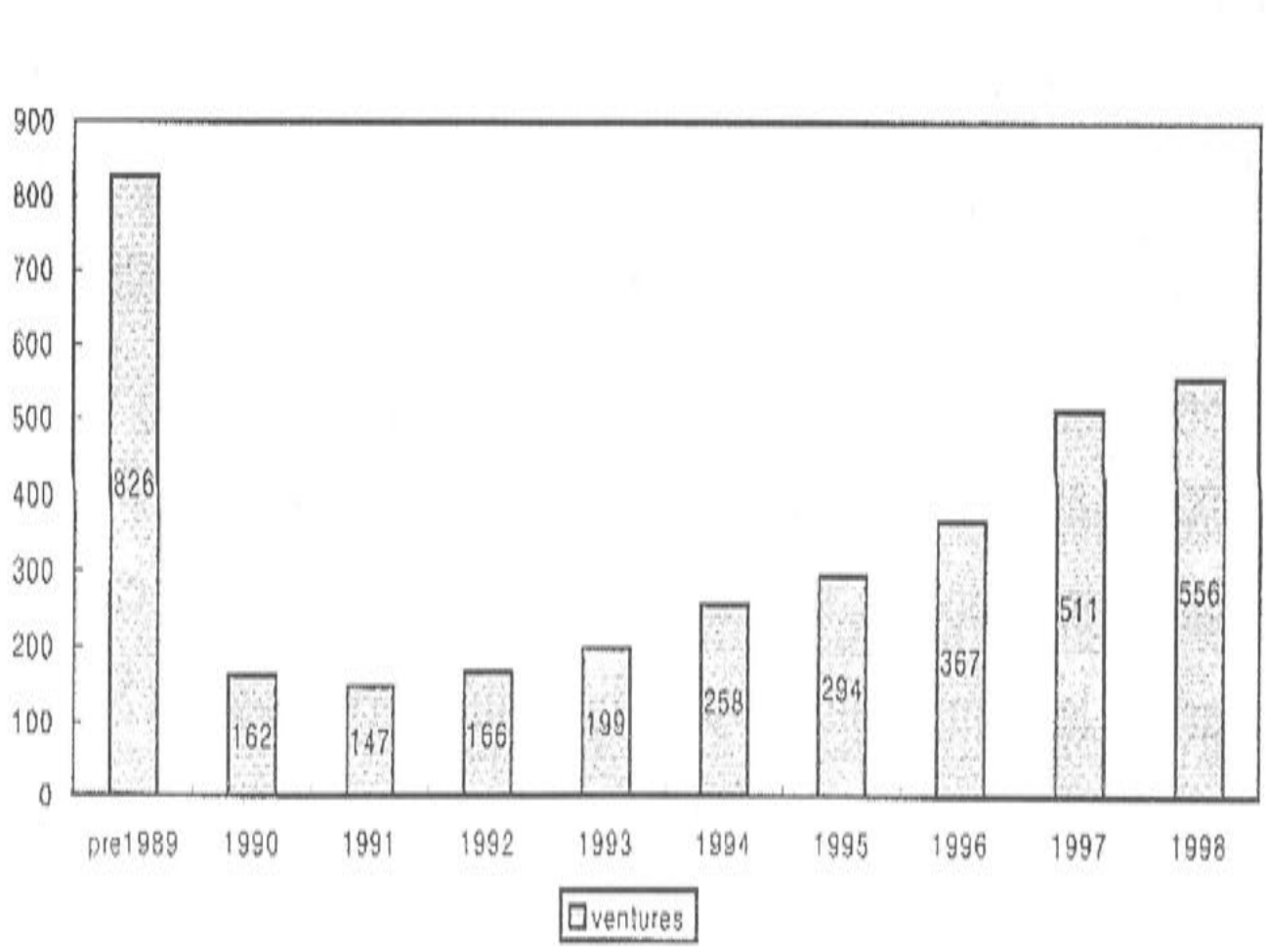
Source: Korea Fair Trade Commission.

Figure A3.11 Business type of spun-off companies



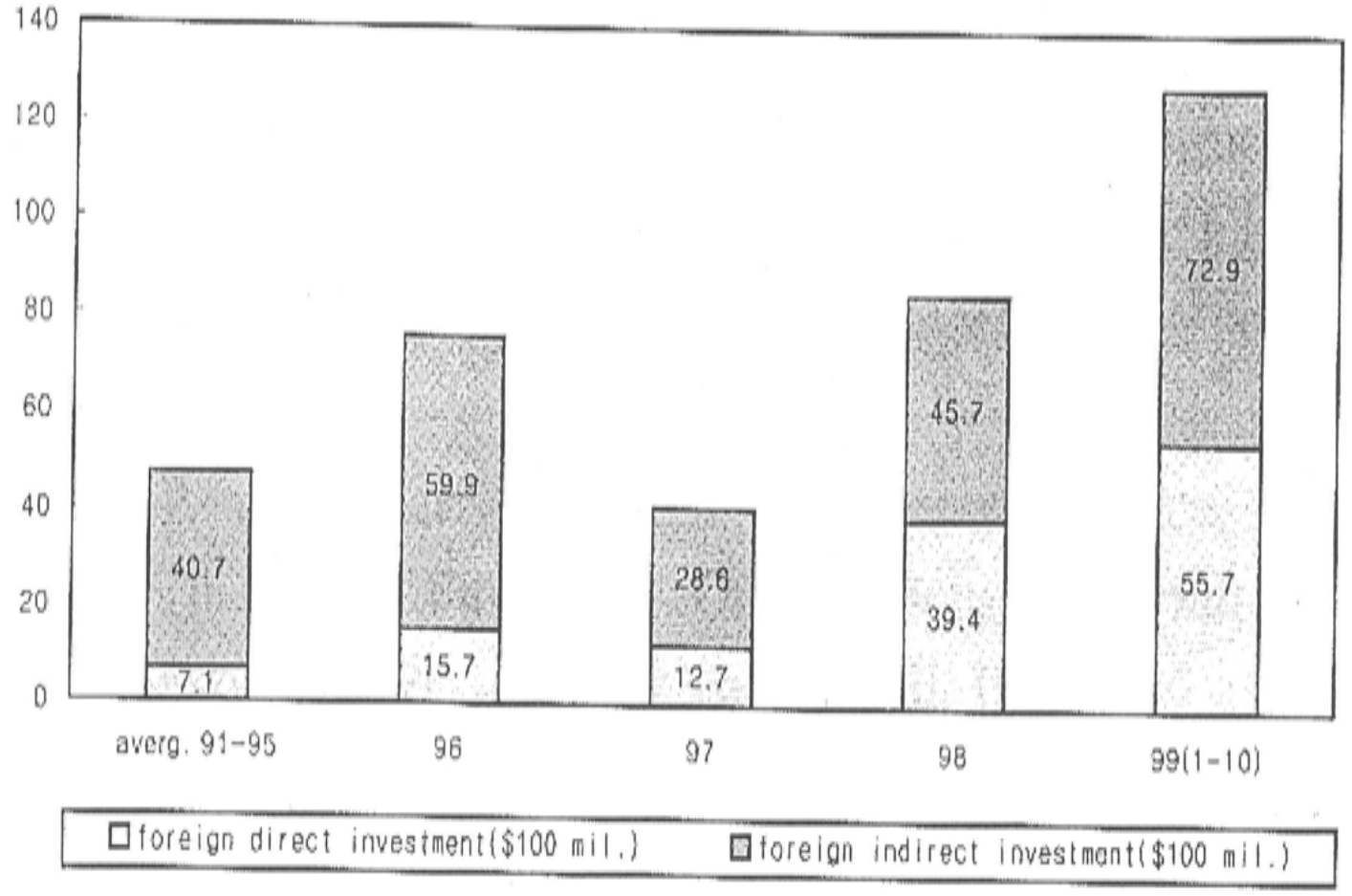
Source: Korea Fair Trade Commission.

Figure A3.12 The number of registered venture businesses



Source: Korea Fair Trade Commission.

Figure A3.13 Foreign Investment in Korea



Source: Korea Fair Trade Commission.

Appendix 1

OECD PRINCIPLES OF CORPORATE GOVERNANCE

The OECD Council, meeting at Ministerial level on 27-28 April 1998, called upon the OECD to develop, in conjunction with national governments, other relevant international organisations and the private sector, a set of corporate governance standards and guidelines. In order to fulfil this objective, the OECD established the Ad-Hoc Task Force on Corporate Governance to develop non-binding principles that embody the views of Member countries on this issue.

The Principles contained in this document build upon experiences from national initiatives in Member countries and previous work carried out within the OECD, including that of the OECD Business Sector Advisory Group on Corporate Governance. During their preparation, a number of OECD committees also were involved: the Committee on Financial Markets, the Committee on International Investment and Multinational Enterprises, the Industry Committee, and the Environment Policy Committee. They also benefited from broad exposure to input from non-OECD countries, the World Bank, the International Monetary Fund, the business sector, investors, trade unions, and other interested parties.

Part One

OECD PRINCIPLES OF CORPORATE GOVERNANCE

I. THE RIGHTS OF SHAREHOLDERS

The corporate governance framework should protect shareholders' rights.

A. Basic shareholder rights include the right to: 1) secure methods of ownership registration; 2) convey or transfer shares; 3) obtain relevant information on the corporation on a timely and regular basis; 4) participate and vote in general shareholder meetings; 5) elect members of the board; and 6) share in the profits of the corporation.

B. Shareholders have the right to participate in, and to be sufficiently informed on, decisions concerning fundamental corporate changes such as: 1) amendments to the statutes, or articles of incorporation or similar governing documents of the company; 2) the authorisation of additional shares; and 3) extraordinary transactions that in effect result in the sale of the company.

C. Shareholders should have the opportunity to participate effectively and vote in general shareholder meetings and should be informed of the rules, including voting procedures, that govern general shareholder meetings:

   1. Shareholders should be furnished with sufficient and timely information concerning the date, location and agenda of general meetings, as well as full and timely information regarding the issues to be decided at the meeting.
   2. Opportunity should be provided for shareholders to ask questions of the board and to place items on the agenda at general meetings, subject to reasonable limitations.
   3. Shareholders should be able to vote in person or in absentia, and equal effect should be given to votes whether cast in person or in absentia.

D. Capital structures and arrangements that enable certain shareholders to obtain a degree of control disproportionate to their equity ownership should be disclosed.

E. Markets for corporate control should be allowed to function in an efficient and transparent manner.

   1. The rules and procedures governing the acquisition of corporate control in the capital markets, and extraordinary transactions such as mergers, and sales of substantial portions of corporate assets, should be clearly articulated and disclosed so that investors understand their rights and recourse. Transactions should occur at transparent prices and under fair conditions that protect the rights of all shareholders according to their class.
   2. Anti-take-over devices should not be used to shield management from accountability.

F. Shareholders, including institutional investors, should consider the costs and benefits of exercising their voting rights.

II. THE EQUITABLE TREATMENT OF SHAREHOLDERS

The corporate governance framework should ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights.

A. All shareholders of the same class should be treated equally.

1. Within any class, all shareholders should have the same voting rights. All investors should be able to obtain information about the voting rights attached to all classes of shares before they purchase. Any changes in voting rights should be subject to shareholder vote.
2. Votes should be cast by custodians or nominees in a manner agreed upon with the beneficial owner of the shares.
3. Processes and procedures for general shareholder meetings should allow for equitable treatment of all shareholders. Company procedures should not make it unduly difficult or expensive to cast votes.

B. Insider trading and abusive self-dealing should be prohibited.

C. Members of the board and managers should be required to disclose any material interests in transactions or matters affecting the corporation.

III. THE ROLE OF STAKEHOLDERS IN CORPORATE GOVERNANCE

The corporate governance framework should recognise the rights of stakeholders as established by law and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises.

A. The corporate governance framework should assure that the rights of stakeholders that are protected by law are respected.

B. Where stakeholder interests are protected by law, stakeholders should have the opportunity to obtain effective redress for violation of their rights.

C. The corporate governance framework should permit performance-enhancing mechanisms for stakeholder participation.

D. Where stakeholders participate in the corporate governance process, they should have access to relevant information.

IV. DISCLOSURE AND TRANSPARENCY

The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company.

A. Disclosure should include, but not be limited to, material information on:

1. The financial and operating results of the company.
2. Company objectives.
3. Major share ownership and voting rights.
4. Members of the board and key executives, and their remuneration.
5. Material foreseeable risk factors.
6. Material issues regarding employees and other stakeholders.
7. Governance structures and policies.

B. Information should be prepared, audited, and disclosed in accordance with high quality standards of accounting, financial and non-financial disclosure, and audit.

C. An annual audit should be conducted by an independent auditor in order to provide an external and objective assurance on the way in which financial statements have been prepared and presented.

D. Channels for disseminating information should provide for fair, timely and cost-efficient access to relevant information by users.

V. THE RESPONSIBILITIES OF THE BOARD

The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders.

A. Board members should act on a fully informed basis, in good faith, with due diligence and care, and in the best interest of the company and the shareholders.

B. Where board decisions may affect different shareholder groups differently, the board should treat all shareholders fairly.

C. The board should ensure compliance with applicable law and take into account the interests of stakeholders.

D. The board should fulfil certain key functions, including:

1. Reviewing and guiding corporate strategy, major plans of action, risk policy, annual budgets and business plans; setting performance objectives; monitoring implementation and corporate performance; and overseeing major capital expenditures, acquisitions and divestitures.
2. Selecting, compensating, monitoring and, when necessary, replacing key executives and overseeing succession planning.
3. Reviewing key executive and board remuneration, and ensuring a formal and transparent board nomination process.
4. Monitoring and managing potential conflicts of interest of management, board members and shareholders, including misuse of corporate assets and abuse in related party transactions.
5. Ensuring the integrity of the corporation's accounting and financial reporting systems, including the independent audit, and that appropriate systems of control are in place, in particular, systems for monitoring risk, financial control, and compliance with the law.
6. Monitoring the effectiveness of the governance practices under which it operates and making changes as needed.
7. Overseeing the process of disclosure and communications.

E. The board should be able to exercise objective judgement on corporate affairs independent, in particular, from management.

1. Boards should consider assigning a sufficient number of non-executive board members capable of exercising independent judgement to tasks where there is a potential for conflict of interest. Examples of such key responsibilities are financial reporting, nomination and executive and board remuneration.
2. Board members should devote sufficient time to their responsibilities.

F. In order to fulfil their responsibilities, board members should have access to accurate, relevant and timely information.

Part Two

ANNOTATIONS TO THE OECD PRINCIPLES OF CORPORATE GOVERNANCE

I. THE RIGHTS OF SHAREHOLDERS

The corporate governance framework should protect shareholders' rights.

Equity investors have certain property rights. For example, an equity share can be bought, sold, or transferred. An equity share also entitles the investor to participate in the profits of the corporation, with liability limited to the amount of the investment. In addition, ownership of an equity share provides a right to information about the corporation and a right to influence the corporation, primarily by participation in general shareholder meetings and by voting.

As a practical matter, however, the corporation cannot be managed by shareholder referendum. The shareholding body is made up of individuals and institutions whose interests, goals, investment horizons and capabilities vary. Moreover, the corporation's management must be able to take business decisions rapidly. In light of these realities and the complexity of managing the corporation's affairs in fast moving and ever changing markets, shareholders are not expected to assume responsibility for managing corporate activities. The responsibility for corporate strategy and operations is typically placed in the hands of the board and a management team that is selected, motivated and, when necessary, replaced by the board.

Shareholders' rights to influence the corporation centre on certain fundamental issues, such as the election of board members, or other means of influencing the composition of the board, amendments to the company's organic documents, approval of extraordinary transactions, and other basic issues as specified in company law and internal company statutes. This Section can be seen as a statement of the most basic rights of shareholders, which are recognised by law in virtually all OECD countries. Additional rights such as the approval or election of auditors, direct nomination of board members, the ability to pledge shares, the approval of distributions of profits, etc., can be found in various jurisdictions.

A. **Basic shareholder rights include the right to: 1) secure methods of ownership registration; 2) convey or transfer shares; 3) obtain relevant information on the corporation on a timely and regular basis; 4) participate and vote in general shareholder meetings; 5) elect members of the board; and 6) share in the profits of the corporation.**

B. Shareholders have the right to participate in, and to be sufficiently informed on, decisions concerning fundamental corporate changes such as: 1) amendments to the statutes, or articles of incorporation or similar governing documents of the company; 2) the authorisation of additional shares; and 3) extraordinary transactions that in effect result in the sale of the company.

C. Shareholders should have the opportunity to participate effectively and vote in general shareholder meetings and should be informed of the rules, including voting procedures, that govern general shareholder meetings:

1. Shareholders should be furnished with sufficient and timely information concerning the date, location and agenda of general meetings, as well as full and timely information regarding the issues to be decided at the meeting.

2. Opportunity should be provided for shareholders to ask questions of the board and to place items on the agenda at general meetings, subject to reasonable limitations.

   In order to enlarge the ability of investors to participate in general meetings, some companies have increased the ability of shareholders to place items on the agenda by simplifying the process of filing amendments and resolutions. The ability of shareholders to submit questions in advance and to obtain replies from management and board members has also been increased. Companies are justified in assuring that frivolous or disruptive attempts to place items on the agenda do not occur. It is reasonable, for example, to require that in order for shareholder-proposed resolutions to be placed on the agenda, they need to be supported by those holding a specified number of shares.

3. **Shareholders should be able to vote in person or in absentia, and equal effect should be given to votes whether cast in person or in absentia.**

   The Principles recommend that voting by proxy be generally accepted. Moreover, the objective of broadening shareholder participation suggests that companies consider favourably the enlarged use of technology in voting, including telephone and electronic voting. The increased importance of foreign shareholders suggests that on balance companies ought to make every effort to enable shareholders to participate through means which make use of modern technology. Effective participation of shareholders in general meetings can be enhanced by developing secure electronic means of communication and allowing shareholders to communicate with each other without having to comply with the formali-

ties of proxy solicitation. As a matter of transparency, meeting procedures should ensure that votes are properly counted and recorded, and that a timely announcement of the outcome be made.

D. Capital structures and arrangements that enable certain shareholders to obtain a degree of control disproportionate to their equity ownership should be disclosed.

Some capital structures allow a shareholder to exercise a degree of control over the corporation disproportionate to the shareholders' equity ownership in the company. Pyramid structures and cross shareholdings can be used to diminish the capability of non-controlling shareholders to influence corporate policy.

In addition to ownership relations, other devices can affect control over the corporation. Shareholder agreements are a common means for groups of shareholders, who individually may hold relatively small shares of total equity, to act in concert so as to constitute an effective majority, or at least the largest single block of shareholders. Shareholder agreements usually give those participating in the agreements preferential rights to purchase shares if other parties to the agreement wish to sell. These agreements can also contain provisions that require those accepting the agreement not to sell their shares for a specified time. Shareholder agreements can cover issues such as how the board or the Chairman will be selected. The agreements can also oblige those in the agreement to vote as a block.

Voting caps limit the number of votes that a shareholder may cast, regardless of the number of shares the shareholder may actually possess. Voting caps therefore redistribute control and may affect the incentives for shareholder participation in shareholder meetings.

Given the capacity of these mechanisms to redistribute the influence of shareholders on company policy, shareholders can reasonably expect that all such capital structures and arrangements be disclosed.

E. Markets for corporate control should be allowed to function in an efficient and transparent manner.

1. The rules and procedures governing the acquisition of corporate control in the capital markets, and extraordinary transactions such as mergers, and sales of substantial portions of corporate assets, should be clearly articulated and disclosed so that investors understand their rights and recourse. Transactions should occur at transparent prices and under fair conditions that protect the rights of all shareholders according to their class.

2. **Anti-take-over devices should not be used to shield management from accountability.**

   In some countries, companies employ anti-take-over devices. However, both investors and stock exchanges have expressed concern over the possibility that widespread use of anti-take-over devices may be a serious impediment to the functioning of the market for corporate control. In some instances, take-over defences can simply be devices to shield the management from shareholder monitoring.

F. **Shareholders, including institutional investors, should consider the costs and benefits of exercising their voting rights.**

The Principles do not advocate any particular investment strategy for investors and do not seek to prescribe the optimal degree of investor activism. Nevertheless, many investors have concluded that positive financial returns can be obtained by undertaking a reasonable amount of analysis and by exercising their voting rights. Some institutional investors also disclose their own policies with respect to the companies in which they invest.

II. THE EQUITABLE TREATMENT OF SHAREHOLDERS

The corporate governance framework should ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress for violation of their rights.

Investors' confidence that the capital they provide will be protected from misuse or misappropriation by corporate managers, board members or controlling shareholders is an important factor in the capital markets. Corporate boards, managers and controlling shareholders may have the opportunity to engage in activities that may advance their own interests at the expense of non-controlling shareholders. The Principles support equal treatment for foreign and domestic shareholders in corporate governance. They do not address government policies to regulate foreign direct investment.

One of the ways in which shareholders can enforce their rights is to be able to initiate legal and administrative proceedings against management and board members. Experience has shown that an important determinant of the degree to which shareholder rights are protected is whether effective methods exist to obtain redress for grievances at a reasonable cost and without excessive delay. The confidence of minority investors is enhanced when the legal system provides mechanisms for minority shareholders to bring lawsuits when they have reasonable grounds to believe that their rights have been violated.

There is some risk that a legal system, which enables any investor to challenge corporate activity in the courts, can become prone to excessive litigation. Thus, many legal systems have introduced provisions to protect management and board members against litigation abuse in the form of tests for the sufficiency of shareholder complaints, so-called safe harbours for management and board member actions (such as the business judgement rule) as well as safe harbours for the disclosure of information. In the end, a balance must be struck between allowing investors to seek remedies for infringement of ownership rights and avoiding excessive litigation. Many countries have found that alternative adjudication procedures, such as administrative hearings or arbitration procedures organised by the securi-

ties regulators or other regulatory bodies, are an efficient method for dispute settlement, at least at the first instance level.

A. **All shareholders of the same class should be treated equally.**

1. **Within any class, all shareholders should have the same voting rights. All investors should be able to obtain information about the voting rights attached to all classes of shares before they purchase. Any changes in voting rights should be subject to shareholder vote.**

The optimal capital structure of the firm is best decided by the management and the board, subject to the approval of the shareholders. Some companies issue preferred (or preference) shares which have a preference in respect of receipt of the profits of the firm but which normally have no voting rights. Companies may also issue participation certificates or shares without voting rights, which would presumably trade at different prices than shares with voting rights. All of these structures may be effective in distributing risk and reward in ways that are thought to be in the best interest of the company and to cost-efficient financing. The Principles do not take a position on the concept of "one share one vote". However, many institutional investors and shareholder associations support this concept.

Investors can expect to be informed regarding their voting rights before they invest. Once they have invested, their rights should not be changed unless those holding voting shares have had the opportunity to participate in the decision. Proposals to change the voting rights of different classes of shares are normally submitted for approval at general shareholders meetings by a specified majority of voting shares in the affected categories.

2. **Votes should be cast by custodians or nominees in a manner agreed upon with the beneficial owner of the shares.**

In some OECD countries it was customary for financial institutions which held shares in custody for investors to cast the votes of those shares. Custodians such as banks and brokerage firms holding securities as nominees for customers were sometimes required to vote in support of management unless specifically instructed by the shareholder to do otherwise.

The trend in OECD countries is to remove provisions that automatically enable custodian institutions to cast the votes of shareholders. Rules in some countries have recently been revised to require custodian institutions to provide shareholders with information concerning their options in the use of their voting rights. Shareholders may elect to delegate all

voting rights to custodians. Alternatively, shareholders may choose to be informed of all upcoming shareholder votes and may decide to cast some votes while delegating some voting rights to the custodian. It is necessary to draw a reasonable balance between assuring that shareholder votes are not cast by custodians without regard for the wishes of shareholders and not imposing excessive burdens on custodians to secure shareholder approval before casting votes. It is sufficient to disclose to the shareholders that, if no instruction to the contrary is received, the custodian will vote the shares in the way he deems consistent with shareholder interest.

It should be noted that this item does not apply to the exercise of voting rights by trustees or other persons acting under a special legal mandate (such as, for example, bankruptcy receivers and estate executors).

3. **Processes and procedures for general shareholder meetings should allow for equitable treatment of all shareholders. Company procedures should not make it unduly difficult or expensive to cast votes.**

In Section I of the Principles, the right to participate in general shareholder meetings was identified as a shareholder right. Management and controlling investors have at times sought to discourage non-controlling or foreign investors from trying to influence the direction of the company. Some companies charged fees for voting. Other impediments included prohibitions on proxy voting and the requirement of personal attendance at general shareholder meetings to vote. Still other procedures may make it practically impossible to exercise ownership rights. Proxy materials may be sent too close to the time of general shareholder meetings to allow investors adequate time for reflection and consultation. Many companies in OECD countries are seeking to develop better channels of communication and decision-making with shareholders. Efforts by companies to remove artificial barriers to participation in general meetings are encouraged.

B. **Insider trading and abusive self-dealing should be prohibited.**

Abusive self-dealing occurs when persons having close relationships to the company exploit those relationships to the detriment of the company and investors. Since insider trading entails manipulation of the capital markets, it is prohibited by securities regulations, company law and/or criminal law in most OECD countries. However, not all jurisdictions prohibit such practices, and in some cases enforcement is not vigorous. These practices can be seen as constituting a breach of good corporate governance inasmuch as they violate the principle of equitable treatment of shareholders.

The Principles reaffirm that it is reasonable for investors to expect that the abuse of insider power be prohibited. In cases where such abuses are not specifically forbidden by legislation or where enforcement is not effective, it will be important for governments to take measures to remove any such gaps.

C. **Members of the board and managers should be required to disclose any material interests in transactions or matters affecting the corporation.**

This item refers to situations where members of the board and managers have a business, family or other special relationship to the company that could affect their judgement with respect to a transaction.

III. THE ROLE OF STAKEHOLDERS IN CORPORATE GOVERNANCE

The corporate governance framework should recognise the rights of stakeholders as established by law and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises.

A key aspect of corporate governance is concerned with ensuring the flow of external capital to firms. Corporate governance is also concerned with finding ways to encourage the various stakeholders in the firm to undertake socially efficient levels of investment in firm-specific human and physical capital. The competitiveness and ultimate success of a corporation is the result of teamwork that embodies contributions from a range of different resource providers including investors, employees, creditors, and suppliers. Corporations should recognise that the contributions of stakeholders constitute a valuable resource for building competitive and profitable companies. It is, therefore, in the long-term interest of corporations to foster wealth-creating co-operation among stakeholders. The governance framework should recognise that the interests of the corporation are served by recognising the interests of stakeholders and their contribution to the long-term success of the corporation.

A. **The corporate governance framework should assure that the rights of stakeholders that are protected by law are respected.**

   In all OECD countries stakeholder rights are established by law, such as labour law, business law, contract law, and insolvency law. Even in areas where stakeholder interests are not legislated, many firms make additional commitments to stakeholders, and concern over corporate reputation and corporate performance often require the recognition of broader interests.

B. **Where stakeholder interests are protected by law, stakeholders should have the opportunity to obtain effective redress for violation of their rights.**

   The legal framework and process should be transparent and not impede the ability of stakeholders to communicate and to obtain redress for the violation of rights.

C. **The corporate governance framework should permit performance-enhancing mechanisms for stakeholder participation.**

Corporate governance frameworks will provide for different roles for stakeholders. The degree to which stakeholders participate in corporate governance depends on national laws and practices, and may vary from company to company as well. Examples of mechanisms for stakeholder participation include: employee representation on boards; employee stock ownership plans or other profit sharing mechanisms or governance processes that consider stakeholder viewpoints in certain key decisions. They may, in addition, include creditor involvement in governance in the context of insolvency proceedings.

D. **Where stakeholders participate in the corporate governance process, they should have access to relevant information.**

Where laws and practice of corporate governance systems provide for participation by stakeholders, it is important that stakeholders have access to information necessary to fulfil their responsibilities.

IV. DISCLOSURE AND TRANSPARENCY

The corporate governance framework should ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the company.

In most OECD countries a large amount of information, both mandatory and voluntary, is compiled on publicly traded and large unlisted enterprises, and subsequently disseminated to a broad range of users. Public disclosure is typically required, at a minimum, on an annual basis though some countries require periodic disclosure on a semi-annual or quarterly basis, or even more frequently in the case of material developments affecting the company. Companies often make voluntary disclosure that goes beyond minimum disclosure requirements in response to market demand.

A strong disclosure regime is a pivotal feature of market-based monitoring of companies and is central to shareholders' ability to exercise their voting rights. Experience in countries with large and active equity markets shows that disclosure can also be a powerful tool for influencing the behaviour of companies and for protecting investors. A strong disclosure regime can help to attract capital and maintain confidence in the capital markets. Shareholders and potential investors require access to regular, reliable and comparable information in sufficient detail for them to assess the stewardship of management, and make informed decisions about the valuation, ownership and voting of shares. Insufficient or unclear information may hamper the ability of the markets to function, may increase the cost of capital and result in a poor allocation of resources.

Disclosure also helps improve public understanding of the structure and activities of enterprises, corporate policies and performance with respect to environmental and ethical standards, and companies' relationships with the communities in which they operate. The OECD Guidelines for Multinational Enterprises are relevant in this context.

Disclosure requirements are not expected to place unreasonable administrative or cost burdens on enterprises. Nor are companies expected to disclose

information that may endanger their competitive position unless disclosure is necessary to fully inform the investment decision and to avoid misleading the investor. In order to determine what information should be disclosed at a minimum, many countries apply the concept of materiality. Material information can be defined as information whose omission or misstatement could influence the economic decisions taken by users of information.

The Principles support timely disclosure of all material developments that arise between regular reports. They also support simultaneous reporting of information to all shareholders in order to ensure their equitable treatment.

A. **Disclosure should include, but not be limited to, material information on:**

1. **The financial and operating results of the company.**

   Audited financial statements showing the financial performance and the financial situation of the company (most typically including the balance sheet, the profit and loss statement, the cash flow statement and notes to the financial statements) are the most widely used source of information on companies. In their current form, the two principal goals of financial statements are to enable appropriate monitoring to take place and to provide the basis to value securities. Management's discussion and analysis of operations is typically included in annual reports. This discussion is most useful when read in conjunction with the accompanying financial statements. Investors are particularly interested in information that may shed light on the future performance of the enterprise.

   It is important that transactions relating to an entire group be disclosed. Arguably, failures of governance can often be linked to the failure to disclose the "whole picture", particularly where off-balance sheet items are used to provide guarantees or similar commitments between related companies.

2. **Company objectives.**

   In addition to their commercial objectives, companies are encouraged to disclose policies relating to business ethics, the environment and other public policy commitments. Such information may be important for investors and other users of information to better evaluate the relationship between companies and the communities in which they operate and the steps that companies have taken to implement their objectives.

3. **Major share ownership and voting rights.**

   One of the basic rights of investors is to be informed about the ownership structure of the enterprise and their rights *vis-à-vis* the rights of other owners. Countries often require disclosure of ownership data once certain

thresholds of ownership are passed. Such disclosure might include data on major shareholders and others that control or may control the company, including information on special voting rights, shareholder agreements, the ownership of controlling or large blocks of shares, significant cross shareholding relationships and cross guarantees. (See Section I.D.) Companies are also expected to provide information on related party transactions.

4. **Members of the board and key executives, and their remuneration.**

   Investors require information on individual board members and key executives in order to evaluate their experience and qualifications and assess any potential conflicts of interest that might affect their judgement.

   Board and executive remuneration are also of concern to shareholders. Companies are generally expected to disclose sufficient information on the remuneration of board members and key executives (either individually or in the aggregate) for investors to properly assess the costs and benefits of remuneration plans and the contribution of incentive schemes, such as stock option schemes, to performance.

5. **Material foreseeable risk factors.**

   Users of financial information and market participants need information on reasonably foreseeable material risks that may include: risks that are specific to the industry or geographical areas; dependence on commodities; financial market risk including interest rate or currency risk; risk related to derivatives and off-balance sheet transactions; and risks related to environmental liabilities.

   The Principles do not envision the disclosure of information in greater detail than is necessary to fully inform investors of the material and foreseeable risks of the enterprise. Disclosure of risk is most effective when it is tailored to the particular industry in question. Disclosure of whether or not companies have put systems for monitoring risk in place is also useful.

6. **Material issues regarding employees and other stakeholders.**

   Companies are encouraged to provide information on key issues relevant to employees and other stakeholders that may materially affect the performance of the company. Disclosure may include management/employee relations, and relations with other stakeholders such as creditors, suppliers, and local communities.

   Some countries require extensive disclosure of information on human resources. Human resource policies, such as programmes for human

resource development or employee share ownership plans, can communicate important information on the competitive strengths of companies to market participants.

7. **Governance structures and policies.**

   Companies are encouraged to report on how they apply relevant corporate governance principles in practice. Disclosure of the governance structures and policies of the company, in particular the division of authority between shareholders, management and board members is important for the assessment of a company's governance

B. **Information should be prepared, audited, and disclosed in accordance with high quality standards of accounting, financial and non-financial disclosure, and audit.**

   The application of high quality standards is expected to significantly improve the ability of investors to monitor the company by providing increased reliability and comparability of reporting, and improved insight into company performance. The quality of information depends on the standards under which it is compiled and disclosed. The Principles support the development of high quality internationally recognised standards, which can serve to improve the comparability of information between countries.

C. **An annual audit should be conducted by an independent auditor in order to provide an external and objective assurance on the way in which financial statements have been prepared and presented.**

   Many countries have considered measures to improve the independence of auditors and their accountability to shareholders. It is widely felt that the application of high quality audit standards and codes of ethics is one of the best methods for increasing independence and strengthening the standing of the profession. Further measures include strengthening of board audit committees and increasing the board's responsibility in the auditor selection process.

   Other proposals have been considered by OECD countries. Some countries apply limitations on the percentage of non-audit income that the auditor can receive from a particular client. Other countries require companies to disclose the level of fees paid to auditors for non-audit services. In addition there may be limitations on the total percentage of auditor income that can come from one client. Examples of other proposals include quality reviews of auditors by another auditor, prohibitions on the provision of non-audit services, mandatory rotation of auditors and the direct appointment of auditors by shareholders.

D. **Channels for disseminating information should provide for fair, timely and cost-efficient access to relevant information by users.**

Channels for the dissemination of information can be as important as the content of the information itself. While the disclosure of information is often provided for by legislation, filing and access to information can be cumbersome and costly. Filing of statutory reports has been greatly enhanced in some countries by electronic filing and data retrieval systems. The Internet and other information technologies also provide the opportunity for improving information dissemination.

V. THE RESPONSIBILITIES OF THE BOARD

The corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders.

Board structures and procedures vary both within and among OECD countries. Some countries have two-tier boards that separate the supervisory function and the management function into different bodies. Such systems typically have a "supervisory board" composed of non-executive board members and a "management board" composed entirely of executives. Other countries have "unitary" boards, which bring together executive and non-executive board members. The Principles are intended to be sufficiently general to apply to whatever board structure is charged with the functions of governing the enterprise and monitoring management.

Together with guiding corporate strategy, the board is chiefly responsible for monitoring managerial performance and achieving an adequate return for shareholders, while preventing conflicts of interest and balancing competing demands on the corporation. In order for boards to effectively fulfil their responsibilities they must have some degree of independence from management. Another important board responsibility is to implement systems designed to ensure that the corporation obeys applicable laws, including tax, competition, labour, environmental, equal opportunity, health and safety laws. In addition, boards are expected to take due regard of, and deal fairly with, other stakeholder interests including those of employees, creditors, customers, suppliers and local communities. Observance of environmental and social standards is relevant in this context.

A. **Board members should act on a fully informed basis, in good faith, with due diligence and care, and in the best interest of the company and the shareholders.**

   In some countries, the board is legally required to act in the interest of the company, taking into account the interests of shareholders, employees, and the public good. Acting in the best interest of the company should not permit management to become entrenched.

B. Where board decisions may affect different shareholder groups differently, the board should treat all shareholders fairly.

C. The board should ensure compliance with applicable law and take into account the interests of stakeholders.

D. The board should fulfil certain key functions, including:

1. Reviewing and guiding corporate strategy, major plans of action, risk policy, annual budgets and business plans; setting performance objectives; monitoring implementation and corporate performance; and overseeing major capital expenditures, acquisitions and divestitures.
2. Selecting, compensating, monitoring and, when necessary, replacing key executives and overseeing succession planning.
3. Reviewing key executive and board remuneration, and ensuring a formal and transparent board nomination process.
4. Monitoring and managing potential conflicts of interest of management, board members and shareholders, including misuse of corporate assets and abuse in related party transactions.
5. Ensuring the integrity of the corporation's accounting and financial reporting systems, including the independent audit, and that appropriate systems of control are in place, in particular, systems for monitoring risk, financial control, and compliance with the law.
6. Monitoring the effectiveness of the governance practices under which it operates and making changes as needed.
7. Overseeing the process of disclosure and communications.

The specific functions of board members may differ according to the articles of company law in each jurisdiction and according to the statutes of each company. The above-noted elements are, however, considered essential for purposes of corporate governance.

E. **The board should be able to exercise objective judgement on corporate affairs independent, in particular, from management.**

The variety of board structures and practices in different countries will require different approaches to the issue of independent board members. Board independence usually requires that a sufficient number of board members not be employed by the company and not be closely related to the company or its management through significant economic, family or other ties. This does not prevent shareholders from being board members.

Independent board members can contribute significantly to the decision-making of the board. They can bring an objective view to the evaluation of the performance of the board and management. In addition, they can play

an important role in areas where the interests of management, the company and shareholders may diverge such as executive remuneration, succession planning, changes of corporate control, take-over defences, large acquisitions and the audit function.

The Chairman as the head of the board can play a central role in ensuring the effective governance of the enterprise and is responsible for the board's effective function. The Chairman may in some countries, be supported by the company secretary. In unitary board systems, the separation of the roles of the Chief Executive and Chairman is often proposed as a method of ensuring an appropriate balance of power, increasing accountability and increasing the capacity of the board for independent decision making.

1. **Boards should consider assigning a sufficient number of non-executive board members capable of exercising independent judgement to tasks where there is a potential for conflict of interest. Examples of such key responsibilities are financial reporting, nomination and executive and board remuneration.**

   While the responsibility for financial reporting, remuneration and nomination are those of the board as a whole, independent non-executive board members can provide additional assurance to market participants that their interests are defended. Boards may also consider establishing specific committees to consider questions where there is a potential for conflict of interest. These committees may require a minimum number or be composed entirely of non-executive members.

2. **Board members should devote sufficient time to their responsibilities.**

   It is widely held that service on too many boards can interfere with the performance of board members. Companies may wish to consider whether excessive board service interferes with board performance. Some countries have limited the number of board positions that can be held. Specific limitations may be less important than ensuring that members of the board enjoy legitimacy and confidence in the eyes of shareholders.

   In order to improve board practices and the performance of its members, some companies have found it useful to engage in training and voluntary self-evaluation that meets the needs of the individual company. This might include that board members acquire appropriate skills upon appointment, and thereafter remain abreast of relevant new laws, regulations, and changing commercial risks.

F. In order to fulfil their responsibilities, board members should have access to accurate, relevant and timely information.

Board members require relevant information on a timely basis in order to support their decision-making. Non-executive board members do not typically have the same access to information as key managers within the company. The contributions of non-executive board members to the company can be enhanced by providing access to certain key managers within the company such as, for example, the company secretary and the internal auditor, and recourse to independent external advice at the expense of the company. In order to fulfil their responsibilities, board members should ensure that they obtain accurate, relevant and timely information.

Appendix 2

Corporate Governance

Definitions of corporate governance

Corporate governance has succeeded in attracting a good deal of public interest because of its apparent importance to the economic health of corporations and society in general. However, the concept of corporate governance is broad because it covers a large number of distinct economic phenomena. As a result, different people have produced different definitions that basically reflect their own special interests in the field. It is hard to see that this 'disorder' will be any different in the future, so the best way to explore the concept is to list several different definitions:

"The definition of corporate governance is involved with the distribution of wealth, position and information. It refers to power, shareholder value, performance and structures. Corporate governance is the exertion of influence over managerial decision making by various stakeholders – shareholders, employees, banks, and the impact upon managerial decision making"(Lorsch, 1989).

"Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment"(Shleifer and Vishny, 1997).

"Corporate governance is about promoting corporate fairness, transparency and accountability"(Wolfensohn, 1999).

"It [corporate governance] is the relationship among various participants in determining the direction and performance of corporations"(Monks and Minow, 1995).

"Some commentators take too narrow a view, and say it (corporate governance) is the fancy term for the way in which directors and auditors handle their responsibilities towards shareholders. Others use the expression as if it were synonymous with shareholder democracy. Corporate governance is a topic recently conceived, as yet ill-defined, and consequently blurred at the edges...corporate governance as a subject, as an objective, or as a regime to be followed for the good of shareholders, employees, customers, bankers and indeed for the reputation and standing of our nation and its economy" (Maw, 1994).

"Corporate governance is a field in economics that investigates how corporations can be made more efficient by the use of institutional structures such as contracts, organisational designs and legislation. This is often limited to the question of shareholder value i.e. how the corporate owners can motivate and/or secure that the corporate managers will deliver a competitive rate of return."(Mathiesen, 1999).

"Corporate governance is the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as, the board, managers, shareholders and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives are set, and the means of attaining those objectives and monitoring performance"(OECD, 1999)[1].

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[1] The OECD definition is consistent with the one presented by Cadbury (1992)

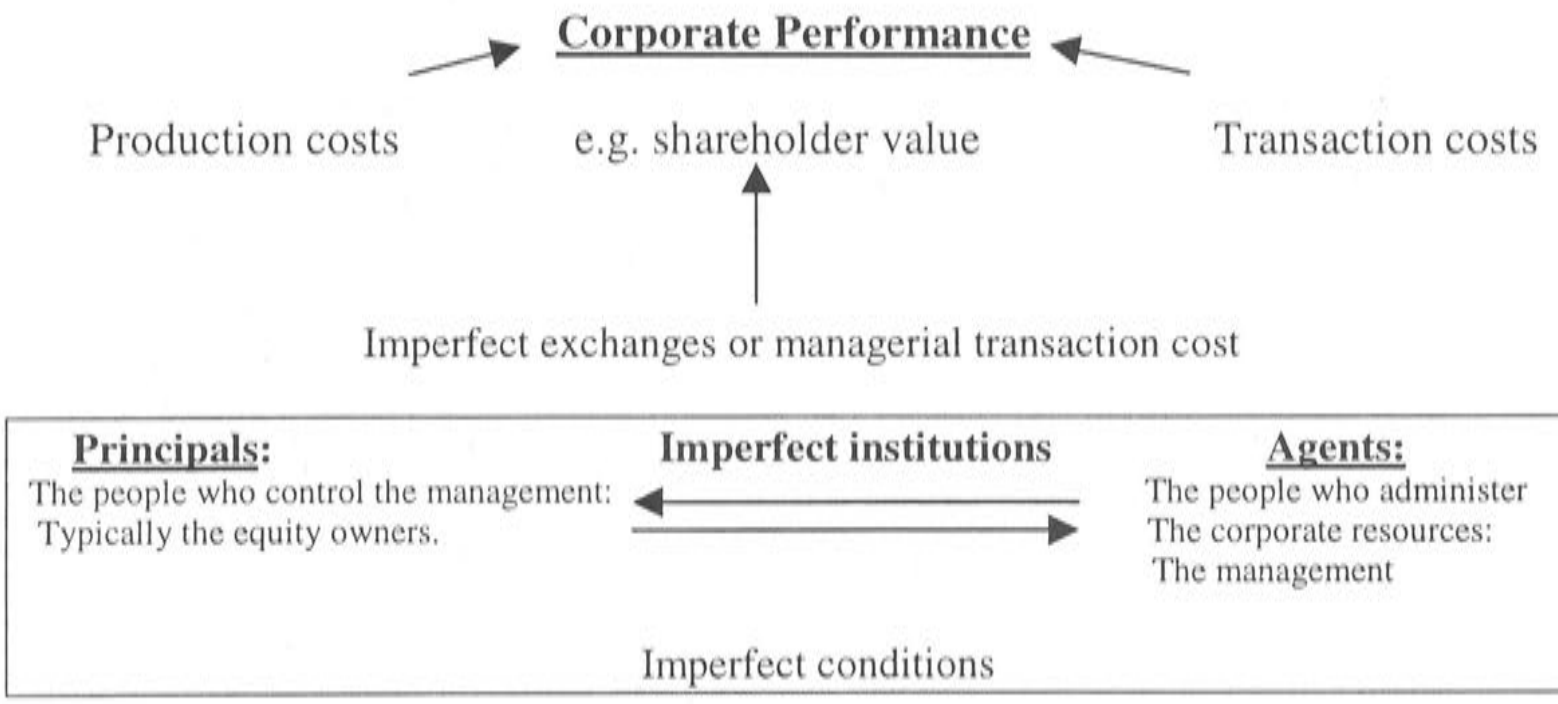
These definitions are all reasonable in their respective contexts. However, the OECD definition (OECD Principles of Corporate Governance, 1999) is broadly accepted. This definition explains accurately contemporary corporate governance systems throughout the world, even though particular countries still have their endogenous governance systems due to their particular corporate environments. Essentially, the origin of the issue of defining corporate governance starts with the question of who has the authority to obtain more profits in modern corporations, ownership of which is shared by and related to many stakeholders. This issue raises various problems.

Corporate governance problems

Corporate governance refers to the ways institutions help principals to obtain profit on their exchanges with management. In other words, corporate governance refers to institutional actions that may help to minimise the transaction costs of the corporate agency. Figure A2.1 shows the correlation between corporate performance and influential variables of production and transaction costs, and between imperfect institutions of ownership structures, decision systems, etc. with principals and agents. Corporate performance can be estimated by some measures as a proxy of how well a firm is using its resources, for instance, return on assets, return on equity, economic profit, book-to-market ratio, Tobin's Q ratio, economic value added or adjusted market returns, etc. The ownership structure is defined by the distribution of equity with regard to votes and capital and also by the identity of the equity owners (Jensen and Meckling, 1976).

According to Figure A2.2, the correlations between corporate performance and imperfect institutions are complicated. The respective variables of imperfect institutions are influenced mutually by themselves, and all of them have influential correlations with corporate performance as well. That is, various hypotheses can be raised about the correlation between corporate performance and various influential imperfect institutions, including ownership structure.

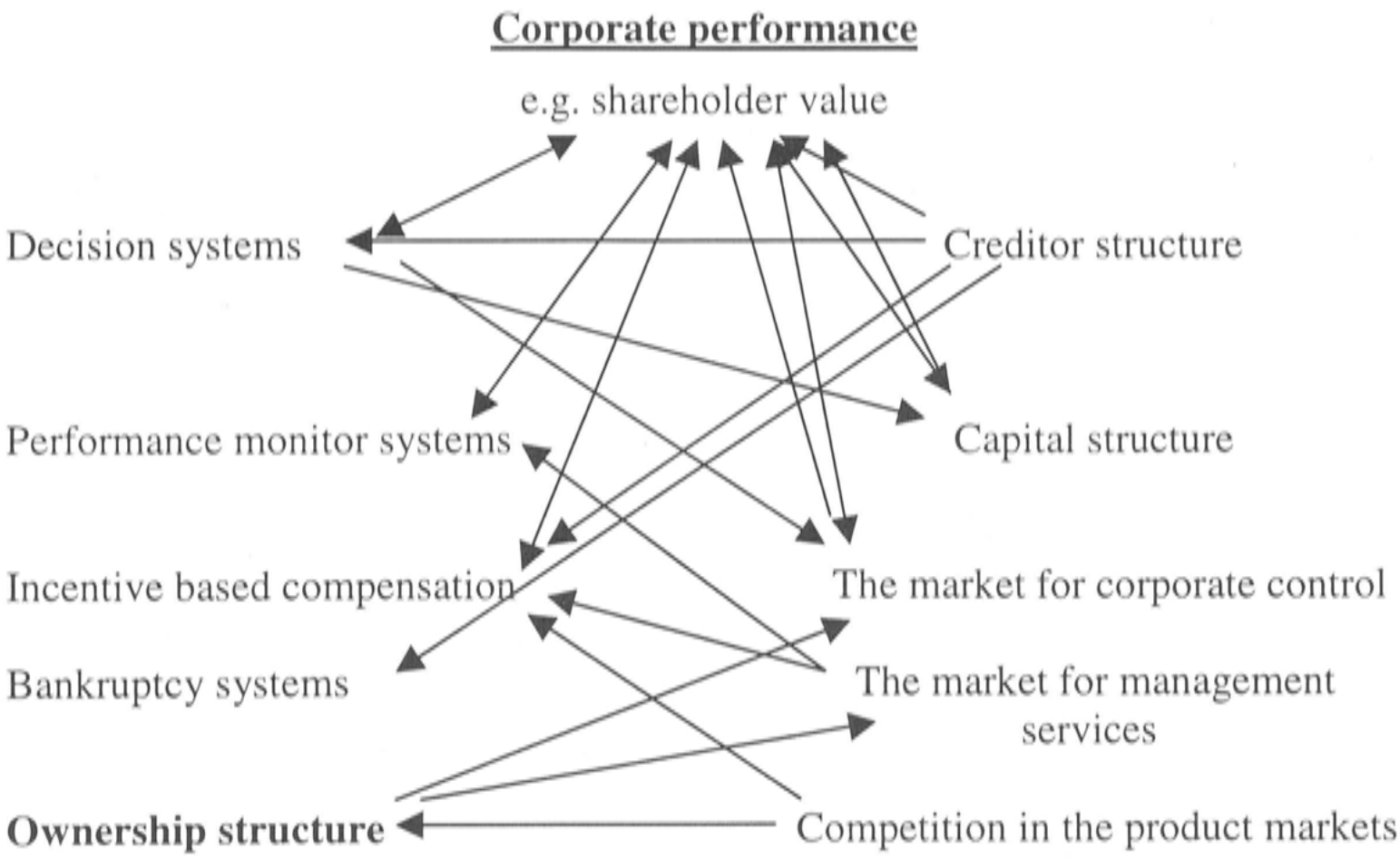
Figure A2.1 Corporate governance problem



Imperfect Institutions: **Ownership structures**
Decision systems
Incentive pay systems
Bankruptcy systems
Creditor structures
Capital structure
Market for corporate control
Market for management service
Product market competition

Source: Mathiesen, 1997

Figure A2.2 Corporate performance and imperfect institutions



Source: Mathiesen, 1997

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